HOSPITAL ABSTRACTS

A MONTHLY SURVEY OF WORLD LITERATURE

PREPARED BY THE DEPARTMENT OF HEALTH

AND SOCIAL SECURITY

VOLUME 20, NO. 4, ABSTRACTS 451-600. APRIL 1980

LONDON: HER MAJESTY'S STATIONERY OFFICE

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First published 1980

ISBN 0 11 722666 1
ISSN 0018—5507

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HOSPITALS IN GREAT BRITAIN

See also Abstract No. 457

451. LONDON HEALTH PLANNING CONSORTIUM. **Towards a balance: a framework for acute hospital services in London reconciling service with teaching needs; a discussion document.** London, [Department of Health and Social Security], 1980. i, 50pp.

London's acute hospitals are heavily concentrated in the centre where the population has been declining for many years but it is also the national centre for medical and dental education and research. The catchment areas of each teaching hospital have been examined by the Consortium and in some cases it recommends amalgamation of hospital services (eg. St. Thomas' Hospital and Westminster; Middlesex Hospital and University College). A number of changes are suggested and details are given of the services provided by each of the 12 teaching hospitals.

HOSPITALS IN OTHER COUNTRIES

452. STUPPIA, V. Aspetti igienico-sanitari del modello organizzativo dell 'Unità Sanitaria Locale. **[Public health and medical aspects of the organizational model for the Local Health Unit.]** *Ospedale*, Torino, 1980, Jan., vol. 33, no. 1, pp. 11-29.

Under the new Health Service arrangements in Italy, the Local Health Unit (LHU) will have responsibility for the following basic services: environmental hygiene, veterinary services, health and social welfare. The author examines various aspects of these services in considerable detail. The hospital is expected to be involved in family planning, infant welfare, geriatric services, general hospital care, rehabilitation, psychiatric care, and pharmaceutical services. The author suggests that the offices for the local services might be attached to the LHU hospital. The present pyramidal system of Area, Regional, and Provincial hospital should be replaced by a network of hospitals of equal standing. The division of the hospital into departments could also be abandoned and a system of progressive patient care introduced. This article contains 13 tables and eight diagrams and is followed by a bibliography with 22 references.

PLANNING, DESIGN AND CONSTRUCTION

HOSPITAL DESIGN

453. STONE, P., editor. **British hospital and health-care buildings: designs and appraisals.** London, Architectural Press, 1980. [iv], 279pp. bibliog. ISBN 0 85139 090 0 £33.00

Hospitals offer a wide range of challenges to designers and architects, some answers

to which are illustrated in this book. All the buildings shown are in the British Isles and they are split into the following categories: (i) seven general hospitals, including Bury St. Edmunds 'best buy' hospital; (ii) four teaching hospitals, including the new Charing Cross; (iii) two health centres; and (iv) two maternity units. The final section shows miscellaneous aspects such as the restaurant and stores at Kingston Hospital, and the laundry and central sterile supply department at Hither Green Hospital. Also in the final section are the Centre for Physically Handicapped in Dublin and Wellington Hospital, a new private hospital in London.

454. NICHOLLS, T. A. **The engineer's brief for the construction and the redevelopment of health buildings.** *World Hospitals*, London, 1979, Nov., vol. 15, no. 4, pp. 243-246.

Engineering services can constitute as much as 50 per cent of the capital cost of health buildings and be a charge on the hospital maintenance and operational budgets which over their life span far exceed their original capital cost. The integration of engineering services in buildings as complex as hospitals is much more than merely fitting them into the building envelope. Reductions can be achieved in both capital and revenue costs by matching as closely as possible the users' requirements of a building to its naturally occurring characteristics, by zoning services to a standard geometrical pattern within the service shafts and horizontal voids, and by producing fully detailed and co-ordinated design drawings before construction commences. All of this is no easy task, but it is one which must be undertaken. The advent of computer programmes for the co-ordination and modelling of engineering services will make all these tasks very much easier.

455. SCHRODER, B. F. Aanpassing gebouw door wijzigning methoden in gezondheidszorg. **[Adapting buildings to changing health care methods.]** *Technische Gids voor Ziekenhuis en Instelling*, Amsterdam, 1980, March, pp. 82-84.

Hospital building design must take into account the widely differing and constantly changing types of hospital processes, for example, transport or safety. A sketch for a model project is given and described. Block A contains the investigation facilities, such as laboratories and X-ray rooms. The adjoining Block B houses treatment facilities such as the theatres and some overflow from Block A including the research laboratories. Block C has an entrance hall, administration and recreation facilities whilst the wards are on the upper floors and some overflow from Block B (maternity, physiotherapy, etc.). Block D houses technical departments, stores, kitchens, chapel. The 10,800 sq.m. basement area is designed for war time emergency use and in peace time accommodates parking space, mortuary, radiation unit and stores. There will be complete air-conditioning, an extensive communication system, provision for supply of six types of gas, four types of water and two types of electrical current and a comprehensive electrical system with an emergency supply. Maximum safety precautions have been taken, including shielding against electromagnetic disturbances and protection against bacterial contamination. Flexibility for future demands includes extension of basement area, space for additional storeys on the low-rise blocks, reserve shafts for technical supplies and easily changeable internal partitions.

456. HATTINGA VERSCHURE, J. C. M. Trends in de ziekenhuisbouw. **[Trends in hospital building.]** *Technische Gids voor Ziekenhuis en Instelling*, Amsterdam, 1980, March, pp. 81, 82.

In the past hospital building was mainly designed to suit the needs of the staff and medical equipment. The patient however also has needs such as: (i) privacy—this includes personal privacy and facilities for private discussions with relatives, etc.; (ii) contact with other patients and staff—six-bedded wards seem to be best suited for bed patients but ambulant patients need facilities for smoking, television, reading, taking meals, and socialization; (iii) self-care—this ranges from nearly total medical care to self-care by ambulant patients. The patients' own environment is important, including help from relatives and friends, from mothers for their children, and better accommodation for seriously ill and dying patients and their relatives. All the objectives mentioned above should be taken into account by the building planners. The paper includes one table, two diagrams and six references.

457. **Newcastle-Upon-Tyne Medical School: Royal Victoria Infirmary redevelopment.** *Hospital Development*, London, 1980, Jan./Feb., vol. 8, no. 1, pp. 16, 17.

The plan for the extension of Newcastle-upon-Tyne's Royal Victoria Infirmary together with the Medical School has three main stages: (i) a newly completed Dental Hospital and Dental School; (ii) the new Medical School; and (iii) a new ward block to contain 336 beds, operating theatres, an out-patient department and X-ray department. Two later ward blocks will bring the bed complement to about 1,250. The multi-storey accommodation has been planned so that essential departmental relationships between the hospital and the school are maintained, despite the constraints caused by the merging of old and new buildings. The Medical School will occupy two blocks, teaching and clinical, designed to take 200 new students per annum. Teaching will be mainly in lecture rooms and multidisciplinary laboratories. The library, animal house and audiovisual section will also be in the teaching block, with a department of photography and television services in the clinical block. Details of the engineering and electrical installations are given.

458. GRANEK, G. **Design for retrofit—planning for future change.** *World Hospitals*, London, 1979, Nov., vol. 15, no. 4, pp. 247-251.

Health care facilities of the past were planned primarily for specific functions and the restraints of the capital cost budget, and secondarily for economical operation. But the hospital, as a vital community centre, is subject to all the social economic pressures and changes of its community. Provisions for future changes should be evaluated to present a minimal burden on the original cost, be less disruptive to vital hospital processes, and incur minimal expenditure in time, cost and energy. Such provision is discussed under the headings: terminals, distribution and source equipment; systems of air control; noise and vibration control; and interstitial spaces. The need for continual change requires commitment to the 'design for retrofit' concept coupled with management by all the disciplines involved in programming, designing, constructing and operating, to achieve optimum integration of structure and services. The successful use of space and capacity for flexibility depends on knowledgeable management with continual feedback from users. There is a greater need than ever for the free exchange of updated research and analyses of use of various health care projects.

459. MARSH, B. **Blending old into new.** *Health and Social Service Journal*, Basingstoke, 1980, Feb. 8, vol. 90, pp. 179-181.

The new district general hospital at Macclesfield is a nucleus hospital, costing £10 million and designed both for intensive use and future expansion. The first phase will include modernized facilities in the existing two older hospitals, the Infirmary and West Park. In addition to the nucleus hospital, two new geriatric wards and a maternity unit have opened at West Park and Congleton Hospital has been developed as a community hospital. Another nucleus hospital is being built at Chester using a new style management contract. The contractor is a full member of the design team at the pre-building stage and does not employ building operatives directly. The Department of Health and Social Security will evaluate this new scheme in terms of time and cost. The contractors and architects of the projects described are listed.

460. DALGLEISH, M. **Mental health buildings evaluation: Sheffield Development Project for mentally handicapped people. Report S6. Hospital day care for adults.** London, Department of Health and Social Security, 1980. [vii], 128pp. bibliog.

This report is concerned with day care services for severely mentally handicapped adults and, in particular, with the effects of building design on the provision of these services. Two new 115-place hospital day care centres in Sheffield, at Lightwood House and Rivermead are discussed. Details are given of the day centre buildings, what happens in them and who uses them. Each centre consists of three zones: a central activities zone and two teaching zones. Systematic observations of the buildings in use indicate the effect of building design on the organization of the centres and the behaviour of the attenders. The views of staff on the design are reported. The emerging picture of how design affects activities is clarified by the experience of staff in two other buildings offering identical services and through reviewing relevant literature. Implications for the future design of adult day centres are considered, as well as local implications for the existing centres.

EXTENSIONS AND RECONSTRUCTIONS

461. HOENDERKAMP, F. T. A. Ziekenhuis renovatie I: renovatie van de technische installaties. **[Hospital renovation I: renovation of technical installations.]** *Technische Gids voor Ziekenhuis en Instelling*, Amsterdam, 1980, March, pp. 90, 91, 93, 95.

The paper is the first of a series of five articles on the renovation of 20-year-old Dijkzicht Hospital, Rotterdam. It deals with the technical installations, renovations of which were carried out in the following stages: (i) electrical installations, with changes in the division of the high and low tension network and of light and wall sockets; (ii) installations for fire precautions, fire alarms and evacuation to comply with the latest fire regulations; (iii) centralization of provision for patients, such as lighting improvements, nurse call system, wall sockets for radio, television, etc.; (iv) improvements in the central heating system in the wards, including thermostatic control; and (v) improvements in ward ventilation by mechanical ventilation and air treatment systems. Standards for equipment in treatment rooms and theatres were raised to comply with new safety regulations and ventilation and cooling systems for X-ray department, kitchens and dining rooms were improved. There was a complete re-building of the

central theatre department on the eleventh floor. The paper includes a plan of the working scheme, a list of contributing firms, and eight pictures.

DESIGN OF SPECIAL DEPARTMENTS

See also Abstract Nos. 521, 553

462. Inwijding van het technisch- en ontvangstblok van het nieuw genees- en heelkundig Instituut van Anderlecht. **[Inauguration of an admissions unit and technical services block in the new Medicosurgical Institute of Anderlecht.]** *Hôpital Belge*, Bruxelles, 1979, Nov./Dec., vol. 22, pp. 7-14.

A four-storey block, opened in June 1979, is the second phase in the renovation of the 400-bed Institute. On the ground floor are the comfortable reception hall with administrative offices and the 24-hour emergency unit; on the first floor the central sterilization and radiography department, theatre suites and intensive care unit; on the second floor the medical records department, electrical and heating installations, bed sterilization area and medical stores; and on the third floor the air-conditioning equipment. The emergency unit is self-contained with six single wards, resuscitation room and small theatre, and has direct access to relevant hospital departments. The intensive care unit has six beds including two isolation beds, all spaced to allow for constant monitoring and attention. The operating suites are separated from the intensive care unit by a system of double corridors to maintain maximum sterile conditions. There are six operating theatres (one for micro surgery) and a seven-bed recuperation ward which, together with the theatres' administrative offices, forms a buffer zone between the four aseptic theatres and the two with non-aseptic techniques. Each has its own anaesthetic room, air-conditioning with over-pressure, biological filters and equipment (such as a Möller microscope) suspended from the ceiling to minimize air-contamination. The radiology department has six large rooms, each for different types of examinations and patients, plus two smaller rooms for special investigations.

463. BRUYERE, J. La nouvelle aile de gériatrie de l'Hôpital civil de Tournai. **[New geriatric wing for Tournai Civil Hospital.]** *Hôpital Belge*, Bruxelles, 1979, Nov./Dec., vol. 22, pp. 15-22.

The new geriatric wing for Tournai Hospital, is essentially a hotel, providing 93 beds and a day centre for the elderly. It has no technical services, kitchen, or heating unit of its own, and is linked to the main hospital by a subway. It is a four-storey L-shaped building, attached to the remaining part of the old hospital, most of which has been knocked down. The architects chose dark red bricks and a steeply sloping slate roof for the section nearest to the old block, while the section facing the new hospital has silex panels on the window basements similar to those used in the facade of the new hospital. The wing has 31 beds on each of the three upper floors and a day room on each floor with a covered terrace which is wide enough to hold beds. In addition, on the second floor under the sloping roof, there is an occupational therapy room. This short account is amply illustrated, with five photographs, a plan of the site, a floor plan of the ground floor and of an upper floor, and bedroom plans.

464. Centro di terapia reintegrativa di Bellikon. **[Bellikon rehabilitation therapy centre.]** *Tecnica Ospedaliera*, Milano, 1979, Dec., vol. 9, no. 12, pp. 20-27.

A short, well-illustrated description of the 252-bed Bellikon rehabilitation centre is given, stressing the architectural aspects. Because it required a great deal of space both inside and out, the centre was conceived as a single articulated block, and was financed by the Swiss National Health Insurance Institute. The large demand for hot water is met by three oil-fired boilers, and there are substations in each sector of the building, fitted with heat exchangers. The main swimming pool has a capacity of 340,000 litres and is kept at a temperature of 28°C; the water is treated with ozone and recycled every four hours. The illustrations include a map of the site, a model of the building showing the position of the different departments and facilities, four floor plans, a section through the whole building, and numerous photographs.

ENGINEERING SERVICES

See also Abstract No. 458

ARTIFICIAL LIGHTING

See Abstract No. 564

COMMUNICATION SYSTEMS

465. GUEST-LEE, S. **Television in medicine. Part 4: the development of CCTV within a medical school.** *Journal of Audiovisual Media in Medicine*, London, 1980, Jan., vol. 3, no. 1, pp. 23-26.

At St. George's Hospital Medical School, London, the psychiatrists were the first to make use of closed circuit television as an aid to teaching, research and patient therapy. They used a two camera monochrome system. As other departments became aware of its possibilities, additional equipment was purchased. As colour is necessary in some disciplines, the school changed to colour in 1973 and also decided to standardize videotape recorders. A comprehensive multidiscipline system is being installed in stages similar to the building of the new hospital complex. Aspects covered include: the television central control room; live transmissions to laboratories; videorecordings; production techniques; local productions; equipment maintenance; and patient consent.

HEATING

466. GRAS, P. Production d'eau chaude sanitaire par energie solaire. **[Producing pure hot water from solar energy.]** *Techniques Hospitalières*, Paris, 1980, Feb., vol. 35, pp. 41-51.

This is a short but well-illustrated description of the solar heating installation at the Gui-de-Chauliac Hospital in Montpellier, which came into operation in June, 1978. The system consists of: (i) the captors, which have a total area of 801 square metres, are

inclined at an angle of 45°, and are set on the flat roof of the hospital; (ii) the solar energy recovery substation, where there are two groups of exchangers, one kept at a high temperature and the other at a low temperature so that cold water is pre-treated before it enters the two storage tanks which are used alternatively and which have a capacity of 25 cubic metres each; and (iii) the conventional water heating system onto which the new installation was grafted. The solar energy is used exclusively for the provision of hot water for domestic purposes; a series of measuring devices has been installed in the system so that its performance can be monitored. Analysis of the results of the first six months' running shows that at current prices the installation does not represent a substantial saving, the cost of solar energy working out at 0.13 francs per Kwh. With rising fuel costs, however, the relative cost will fall. The total installation cost was 962,000 francs.

ENERGY CONSERVATION

467. HYMAN, W. A. **Energy conservation in hospital buildings.** *Building Systems Design*, Little Silver, N.J., 1979, Oct./Nov., vol. 76, no. 6, pp. 41-47.

It has been estimated that the hospitals of the United States account for about 15 per cent of all energy used in commercial structures. Energy costs have risen from a negligible proportion of the hospital budget to seven to eight per cent; a further increase to as much as 20 per cent in the future has been forecast. Awareness of the problem has been increasing rapidly due to the general information flow and specific efforts of national, state and local organizations. The distribution of energy consumption within the hospital is outlined. A complete energy conservation programme requires the commitment of top management. An advisory energy management committee should be established. Its tasks are to: (i) develop the necessary data base; (ii) analyze survey data to identify areas of potential saving; and (iii) implement the programme. Some conservation methodologies are suggested.

PIPING INSTALLATIONS

468. WATHEN, B. G. **Commissioning a medical gas pipeline system in a new hospital.** *Pharmaceutical Journal*, London, 1980, Feb. 23, vol. 224, pp. 209-212.

This article describes in detail the testing carried out by the pharmacy department of the four medical gas pipeline systems at the new district hospital at Barnstaple, North Devon. The programme of tests included the checking of oxygen and nitrous oxide for: (i) the presence of carbon dioxide and carbon monoxide; (ii) the degree of alkalinity and acidity; and (iii) the presence of dirt particles. The methods used for the tests are described, including the use of Drager tubes. An apparatus consisting of three calibrated flow-meters was designed to enable several wet chemistry tests to be carried out simultaneously. The assay for oxygen was performed using a Taylor Servomex 0A272 oxygen analyzer, and for nitrous oxide using a Grubb Parsons model IRGA 20 infra-red gas analyzer. The medical compressed air was tested for dirt particles and the presence of oil mist. All the tests were done at the most distant terminal outlet of each

branch of the pipeline network and took one pharmacist and one technician four days to complete. The results reassured the hospital that the new system was safe for patient use.

469. BAUMEISTER, A. Einsatz medizinischer und technischer Gase im Krankenhaus. **[The use of medical and technical gases in the hospital.]** *Krankenhaus-Umschau*, Kulmbach, 1979, Dec., vol. 48, no. 12, pp. 968, 970, 987-993.

The increasing use of medical and technical gases, even in smaller hospitals, makes it desirable to set out the uses and risks of such gases and the precautionary measures to be taken. Under the heading 'medical gases' the following are dealt with: oxygen for medical purposes; nitrous oxide; carbon dioxide; compressed air and vacuum; and narcotic gases. Tubing and fittings for medical gases are also discussed. The technical gases dealt with include propane, acetylene, hydrogen, and ethylene oxide. The paper also deals with the uses of combustible gases and their central supply.

SANITARY EQUIPMENT AND FITTINGS

470. SPRI. Hygienrum: utrymme för personlig hygien vid avdelningar för långtidssjukvård. **[Hygiene rooms: designing rooms for patients' personal hygiene requirements in long-stay wards.]** Stockholm, Spri, 1979. 64pp. (Rapport 21; Projekt 5045)

This study concentrates primarily on bathrooms and toilets in long-stay wards Four 'need groups' are identified: (i) patients who can walk and do not require assistance; (ii) patients who can walk but require assistance from one or two persons; (iii) wheelchair patients who require minimal assistance; and (iv) wheelchair patients who require the assistance of several people. For each group the facilities required and space needed are examined. Where several groups must be catered for, equipment must sometimes be duplicated or made moveable; ideally only one group should have to use a particular room.

471. FREROTTE, J. and VERSTRAETE, W. L'épuration des eaux usées dans les centres hospitaliers. **[Cleaning dirty water in hospitals.]** *Hôpital Belge*, Bruxelles, 1979, Nov./Dec., vol. 22, pp. 25-28.

In addition to the usual domestic waste, a hospital has to dispose of drugs, laboratory refuse, water which has been used for cleaning floors, walls, or instruments, and water from the laundry. The latter may contain formol, ethylene oxide, aldehydem and phenol derivatives. Any pathogens in the waste water (which can amount to 1,300 litres per bed per day) must be rendered harmless before it enters the public sewers. This may be done in an underground tank by chlorination, followed by dechlorination, or by heat treatment. A pre-treatment system may also be required—a flocculant being added to the water which then enters a tank where flocculation and settling takes place. If the waste water is eventually to be returned to the river, then a full biological treatment must be given. Various local treatments can be applied to relieve the general purification station, in particular for ethylene oxide, phenol, and other antiseptics. The authors of this survey recommend that: (i) as far as possible buffer tanks should be provided to equalize flow peaks; (ii) the hospital should use disinfectants and sterilizing agents

which have a fairly low impact on the biomass of the station; and (iii) the station should have analyzers which will quickly detect any danger for biological life, eg. a toxicity detector. If large quantities of toxic products are discharged inadvertently, then a biological activator may be added, the effluent diluted with fresh water, and activated carbon added to the aeration tank.

EQUIPMENT, FITTINGS, FURNITURE

FLOORS AND FLOOR COVERINGS

472. PHILLIP, E. H. Das System der totalen Fussbodendesinfektion. **[The system of total disinfection for floor surfaces.]** *Krankenhaus-Umschau*, Kulmbach, 1979, Dec., vol. 48, no. 12, pp. 995, 996.

Total floor disinfection requires that the floor surface be completely smooth; without joins; and free from pores or indentations. Since such floors do not exist in hospitals it is necessary to seal the floor surface. The procedure is as follows: thorough cleansing; priming with a microbicidal substance; sealing with a suitable plastic substance without a solvent; and elimination of the scouring process previously necessary. This method not only provides excellent floor surface protection, it also at least doubles the life of the floor. Thorough cleansing procedures and scrubbing with disinfectant are no longer necessary as disinfection can be achieved during normal cleaning with mops.

BEDS, COTS, ETC.

473. MORRISON, D. **A terribly strange bed.** *Engineering in Medicine*, London, 1980, Jan., vol. 9, no. 1, pp. 43-47.

The author describes his prototype of a hospital water bed for use in an intensive care unit when the patient is almost totally helpless with all his systems supported artificially. A box or canopy fits over the bed, housing six fluorescent tubes for lighting, sockets for monitoring equipment, piped gas outlets, flowmeters and suction bottles. The fibreglass bed is of the water flotation type, using the minimum quantity of water in order to reduce weight. The author prefers a hard bath connected to a drain rather than a bag for holding the water. If the upper plastic sheet were removed, patients could be washed in the bath. A thermatically controlled water supply with a pump and heater is designed to maintain the water at the desired temperature. The water bed could be converted to a more conventional bed by use of a 'roller blind' type rigid top. The bed would be fixed because of the plumbing, then the only patient handling needed is vertical raising and lowering using a hoist. Sketches show the current design of the bed for which many new features are planned.

474. HOLLEY, L. K. and others. **A new pressure measuring system for cushions and beds—with a review of the literature.** *Paraplegia*, Edinburgh, 1979, Nov., vol. 17, no. 4, pp. 461-474.

The first part of this paper reviews the literature relating to decubitus skin ulceration and the measurement of the forces acting to cause the disturbance. It then describes the research into and development of a relatively simple but effective pressure measuring

device for the assessment of subject-cushion interface pressures at 10 points. Preliminary trials have been carried out using 12 healthy subjects on four cushions and three spinal injury patients on six cushions. Any measuring device will perturb the interface to an unknown extent. Despite this, the system has proved useful for quick, repeatable, comparative measurements of different cushions. The results from the healthy subjects indicate that there is a significant difference between the average pressure with a cushion and the average pressure without a cushion. It was also found that the water and foam cushion distributed the pressure over a larger area than the foam cushions. The results from the spinal injury patients are too brief to make a statement on the relative merits of the cushions used. A list of 43 references to the literature is included.

LIFTING DEVICES, HOISTS

475. BRITISH STANDARDS INSTITUTION. **Specification for mobile, manually operated patient-lifting devices.** London, British Standards Institution, 1979. [ii], 6pp. (BS 5827:1979)

This British Standard specifies requirements for the mechanical safety aspects of mobile patient-lifting devices and describes the related type tests and the production test for individual devices. In addition the Standard makes recommendations for the design, performance and routine maintenance testing.

476. BELL, F. and FENNELL, M.-J. **Equipment for disability evaluation.** *Demonstration Centres in Rehabilitation Newsletter*, Middlesbrough, 1980, Jan., pp. 6-8.

Basic information for a study of patient-lifting equipment, especially mobile hoists, was obtained from a questionnaire survey of 725 hospital wards in the Lothian and Tyne and Wear areas. The questionnaire was followed by interviews with a 10 per cent sample of nurses, administrators and engineers, and discussions were held with manufacturers of lifting equipment. The final stage, clinical trials with patients, will take place in mid-1980. In about one third of a total of 22,000 wards in National Health Service hospitals, patients present a considerable lifting problem. Three out of four such wards have hoists, but they are usually only considered suitable for use when bathing patients. Of 79 hoists examined, 62 were Mecanaids products, of which 58 were Ambulifts, which are well-regarded by users. The hoists study has raised a number of questions related to: (i) the needs of different environments; (ii) training of staff in the use of lifting equipment; and (iii) the suitability and cost of different equipment. Researchers in the same area are now planning a study on beds.

MEDICAL EQUIPMENT

See also Abstract No. 563

477. AUSTRALIA. DEPARTMENT OF HEALTH. COMMITTEE ON APPLICATIONS AND COSTS OF MODERN TECHNOLOGY IN MEDICAL PRACTICE. **Report.** (Chairman: Dr. S. Sax). Canberra, Australian Government Publishing Service for the Commonwealth Department of Health, 1978. xix, 201pp. bibliog. ISBN 0 642 03956 9

This Australian report considers methods of dealing with medical benefits and the

adjustment of revenue flows in public hospitals, taking into account the current and future developments in high technology diagnosis, such as computer tomography. Amongst the solutions considered are the American 'certificate of need' system whereby some states require hospitals to obtain their approval for capital investment in beds and expensive equipment. The report also deals with the arrangements between specialists and hospitals concerning the sharing of income arising from diagnostic services performed by the specialists on private patients in hospitals using hospital equipment. A large bibliography is provided.

AUDIO-VISUAL EQUIPMENT

See also Abstract No. 465

478. TOWNSEND, I. **Audiovisual media in nursing.** *Journal of Audiovisual Media in Medicine*, London, 1980, Jan., vol. 3, no. 1, pp. 15, 16.

The NHS Learning Resources Unit was established in 1972 to provide information on audiovisual material to the Schools of Nursing in England and Wales. The Unit, based at Sheffield City Polytechnic, provides an information and consultancy service but, while it aims to stimulate the use of a wide variety of educational methods, it does not attempt to evaluate equipment or recommend a best buy. Services include: (i) information about commercial software and audiovisual equipment; (ii) two unit newsletters; (iii) consultancy work on programmed learning in the nursing curriculum; (iv) courses in methods and media; and (v) publication of a number of programmed texts and a smaller number of multimedia packages.

ELECTRONIC EQUIPMENT

See Abstract No. 585

STAFF GENERALLY

RECRUITMENT AND MANPOWER

See also Abstract Nos. 485-487

479. BOFINGER, W. Ausfallzeiten richtig rechnen—6 bis 9% mehr Personal? **[Correct calculation of lost working time—six to nine per cent more staff?]** *Krankenhaus-Umschau*, Kulmbach, 1979, Dec., vol. 48, no. 12, pp. 954-958, 961-967.

The 15 per cent laid down by the German Hospital Association in 1969 as a reference figure for lost working time (annual leave, statutory holidays, sickness, etc.) among hospital staff is now regarded as being too low. What is suggested here is that to cover this lost time staff complements need to be increased by six to nine per cent, or even more. The paper sets out a number of detailed calculations and formulae for determining actual hours worked and staffing requirements.

STAFF MANAGEMENT

See Abstract No. 489

STAFF TRAINING

See also Abstract Nos. 465, 488, 492, 511

480. AMANN, E. Zweijähriger Weiterbildungslehrgang für Unterrichtskräfte in der Krankenpflege an der Schwesternschule der Universität Heidelberg. **[The two year training course for nurse tutors at Heidelberg University School of Nursing.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1980, March, vol. 33, no. 3, pp. 157-162.

From 1979 the full-time training course for nurse tutors at Heidelberg, which had previously been of 18 months duration, has been extended to two years. Theoretical instruction has remained the same, the extra periods being devoted to practical work. The course divides into six terms, three in each year and the total of leave over the whole course amounts to 18 weeks. The total hours of instruction are 2,500 divided as follows (the first figure in each case refers to theory and the second to practice): teaching (general nursing), 306, 261; specialist teaching, 288, 358; professional affairs, 263, 320; applied social science, 449 (theory only); natural sciences, 183 (theory only); and attending nurses' tests and taking part in visits and meetings, 72 (total). The syllabus is set out in detail. A thesis has to be prepared and the course concludes with examinations.

481. RHODES, P. **The framework of graduate medical education.** *Lancet*, London, 1980, Feb. 16, pp. 356-359.

The present system of graduate education for the medical specialties in Great Britain is outlined and its problems discussed. There is now an increasing realization that education is an integral part of the service and is the concern of every doctor. The concept that best expresses this is that each region should run a school of graduate medicine within and for the benefit of the National Health Service. An outline for the organization of such a school is described and its relationship to the existing system discussed. Also discussed are postgraduate centres, general practice, the aims of the school and continuing education.

STAFF WELFARE

See also Abstract No. 479

482. ROUQUIER, A. Les conditions de travail dans les hôpitaux. **[Working conditions in hospitals.]** *Hôpital à Paris*, Paris, 1979, Sept./Oct., pp. 407-416.

The author describes current working conditions in French hospitals considering: (i) hours worked and shifts (7.15 am-3.30 pm; 3.15 pm-11.15 pm; 11 pm-7 am); (ii) holidays (27 days per annum); (iii) part-time employment; and (iv) absenteeism. She reviews the changes in nursing care which have resulted from factors such as the full-time presence of doctors in the hospital, reductions in the length of time that patients

stay in hospital, technological advances, and architectural developments. Amongst the changes discussed are: the replacement of large wards by single and double rooms; the nurses' relationships with patients, doctors, and nursing colleagues; and the amount of time devoted to each patient. The main sources of dissatisfaction among hospital staff stem from the problem of reconciling hospital timetables with family life. The author refers briefly to various flexible-hour experiments and also to ergonomic studies. She suggests several minor innovations: the provision of advance information to nursing staff on the work they are to do next day, classification of patients by the amount of care their condition requires, and the preparation, for the use of the nursing team, of protocols for examination of the patient.

483. SPINGLER, A. and SCHUNK, W. Zum Gesundheitszustand halothanexponierter Werktätiger in Operationssälen. **[On the state of health of operating room personnel exposed to halothane.]** *Zeitschrift für die gesamte Hygiene und ihre Grenzgebiete*, Berlin, 1980, Jan., vol. 26, no. 1, pp. 26-30.

The authors present a review of world literature (with 101 references) on the effects of halothane on the health of operating theatre staff. They also report on investigations carried out in Erfurt involving operating theatre staff (22 anaesthetists, 28 surgeons, 48 theatre nurses and three other assistants) and using 57 staff members exposed to radiation as controls. The results are set out in two diagrams. While for a number of diseases there were no significant differences between the two groups, in the case of diseases of the liver incidence was significantly higher in the control group. While those exposed to halothane complained more frequently of heart symptoms, electrocardiograms showed a significantly higher incidence in the controls. In the use of head pains 64.5 per cent of operating theatre staff complained of this symptom as against 24.6 per cent of the controls. Proposals for controlling the effects of halothane, including thorough and regular examination of the staff concerned, are put forward.

OTHER STAFF AMENITIES

See Abstract No. 517

SPECIAL CLASSES OF STAFF

ADMINISTRATIVE AND CLERICAL STAFF

484. SIRIORI, P. G. La collacazione del direttore sanitario ospedaliero nell'unita sanitaria locale. **[Placing the hospital administrator in the Local Health Unit.]** *Ospedale*, Torino, 1980, Jan., vol. 33, no. 1, pp. 3-10.

The author describes the role of the hospital administrator before the advent of the new National Health Service in Italy and discusses what his role should be in future. The Health Service Act contains various ambiguities, for example Article 17 states that 'hospital organization will be achieved through the departmental instrument' but at no point is the 'department' defined. Article 14 gives the Local Health Unit (LHU) responsibility for environmental health, prevention of disease, maternity and paediatrics, out-patient specialist medical care, and rehabilitation as from January 1980 onwards.

It seems unlikely, however, that all this can be implemented so soon. For one thing, the country has few suitably qualified administrators. The public hospital is the only existing health agency with a long tradition of administration. Perhaps the director or co-ordinator of the LHU should be chosen from among the ranks of hospital administrators, public health officers, and provincial medical officers.

MEDICAL STAFF

See Abstract No. 481

NURSING STAFF

See also Abstract Nos. 478, 480, 482, 511, 529, 542, 573, 575, 579, 580

485. STEPHENS, G. M., DAVIES, A. and GOLDBERG, C. B. **An evaluation of the Aberdeen formula for calculating nurse establishments in hospital wards: research project report.** Johnstown, Dyfed Health Authority, 1978. [iii], 63pp.

A patient dependency study was undertaken by Dyfed Health Authority to predict the number of nurses required to meet patients' needs for nursing care. The results have been checked against the formula developed by the North-Eastern Hospital Board in Scotland, the 'Aberdeen formula'. The study concludes that the Scottish system would be an improvement on the Dyfed methods and would provide a defined standard of care that could be monitored. The Aberdeen formula is an improvement on ad hoc methods of calculating establishments, and provides a foundation for a rational approach to the use of resources.

486. SENIOR, O. E. **Dependency and establishments: nursing establishments in general hospital wards; the changeover from a non-teaching to a teaching hospital.** London, Royal College of Nursing, 1979. 112p. bibliog. ISBN 0 902606 57 3 £3.00

This study was carried out to determine the changes in the nursing establishment required on general hospital wards when a non-teaching hospital becomes a teaching hospital. The study was carried out in three phases: (i) to determine a method of calculating nursing establishments using the methodology in general hospital wards; (ii) to use the methodology to determine the establishment required in a hospital before the introduction of medical teaching; and (iii) to determine the establishment required one and a half years after the introduction of medical teaching. Some broad generalizations can be made from the study and it can be shown that the methodology can be universally applied to determine the nursing establishment in general hospital wards. The limitations of the study are recognized, but in the course of it, a whole series of questions and suggestions for further research have emerged.

487. LANGFORD, T. and PRESCOTT, P. A. **Hospitals and supplemental nursing agencies: an uneasy balance.** *Journal of Nursing Administration*, Wakefield, Mass., 1979, Nov., vol. 9, no. 11, pp. 16-20.

Hospitals use supplemental nursing agencies in four ways: (i) to provide extra staff for unexpected needs; (ii) to cover regular staffing fluctuations; (iii) to provide private staffing; and (iv) in special contract arrangements. A survey carried out by the author

revealed an uneasy balance between hospital employed nurses and their agency counterparts. Doubts were expressed amongst nursing directors about the quality and continuity of care given by temporary service nurses. It appears that morale among permanent nursing staff declines when temporaries are used, owing to changes in job assignment. Nursing administrators are concerned that the flexible working arrangements of supplemental services will attract staff away from hospitals. Hospitals could reduce reliance on agency nurses by: (i) altering staffing policies to create shared positions and different shift systems; (ii) creating shared arrangements among small hospitals; (iii) reviewing salaries and other benefits; and (iv) using agencies on a planned basis only. Agencies could help keep the balance by: (i) developing quality assurance measures; and (ii) refraining from recruiting nurses who want full-time work.

488. KÖNIG, E. Ausbildungskosten in der Krankenpflege. **[The cost of training nurses.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1980, March, vol. 33, no. 3, pp. 172-174.

This analysis of the cost of training nurses in West Germany is based on figures obtained at the end of 1978. Schools of nursing are in four groups: (i) those with up to 45 places; (ii) 46 to 60 places; (iii) 61 to 99 places; and (iv) over 100 places. Annual costs per student nurse are given for each group under the following subheads: teaching staff; other staff; teaching materials; buildings; and other costs (care of students, administration, etc.) The average annual cost for all schools works out at DM 16,695 per student. The average annual training allowance per student, including social security supplements, is DM 12,868. The average number of students per nurse tutor was 22.

489. STEVENS, B. J. **Improving nurses' managerial skills.** *Nursing Outlook*, New York, 1979, Dec., vol. 27, no. 12, pp. 774-777.

Two simultaneous trends have been and are occurring: nursing management is growing more complex; and education for nursing management has been systematically eliminated from nursing curricula. The results of the interaction of these trends are predictable; some of the problems which have arisen are outlined. As a first step in overcoming these problems, basic nursing courses must recognize that most nursing takes place in an organizational setting and that students must be taught how to deal with providing care in that setting. Nurse managers need formal educational preparation in management. They must, therefore, synthesize two disciplines, nursing and management. Other than educational routes, the director of nursing may take several useful steps to develop managerial capabilities: seek out natural leaders and give them opportunities to develop leadership; produce clearly defined organizational positions and precise job descriptions; and direct new managers to the realities of today's management. Nursing management is also being confronted by bureaucratic/legalistic demands yet has direct influence on nursing, and must reconcile institutional care with one-to-one independent nursing practice.

490. LELEAN, S. R. **Research in nursing: an overview of DHSS initiatives in developing research in nursing.** *Nursing Times*, London, 1980, Jan. 17, vol. 76, no. 3, occasional papers; pp. 5-8; Jan. 24, vol. 76, no. 4, occasional papers; pp. 9-11.

The Department of Health and Social Security (DHSS) has played a leading part in

developing research in nursing in the National Health Service, since it created a post of nursing officer with special responsibility for research in the 1960s. DHSS contributions include: establishment of the Nursing Research Liaison Group; education for research; the nursing research liaison officer scheme; research appreciation courses; research fellowship scheme; dissemination and use of research; Index of Nursing Research; *Nursing Research Abstracts*; provision of focal points; research units; and research programmes. The second part of the paper reviews some of the research commissioned by the Nursing Research Liaison Group, and examines briefly some of the problems encountered in developing research in nursing.

491. SPADONI, Y. Quelques réflexions sur la qualité et le contrôle de la qualité des soins infirmiers à l'hôpital. **[Reflections concerning quality and quality control of nursing care in hospital.]** *Hôpital à Paris*, Paris, 1979, Sept./Oct., no. 53, pp. 377-384.

A general examination of methods of evaluating the quality of care is followed by a description of the process of conducting an audit of nursing care. A particular theme is selected, and then criteria are chosen which reflect the optimum level of nursing care in regard to the state of health of the patient on admission and discharge. The patients' records are examined; nursing practice is checked and possible deficiencies identified; the percentage of satisfactory records is checked against the percentage set beforehand; the causes of unsatisfactory items are analyzed and corrective measures (training, organizational changes, acquisition of better equipment) are worked out and implemented. There is then a follow-up to assess the implementation of the corrective measures, and the results of the audit are sent to the authorities concerned (management, medical staff, nursing department). The author outlines procedures whereby this system of quality control, which has already been adopted by the American Hospital at Neuilly, could be introduced into French hospitals.

492. NIELSEN, E. K., and others. Sygeplejerskers uddannelsesforhold. **[Nurse training.]** *Sygeplejersken*, København, 1980, Jan. 9, no. 2, pp. 4-7; Jan. 16, no. 3, pp. 12-14; Jan. 23, no. 4, pp. 12-16.

The nurse's role in the health service is affected by: (i) the changed attitudes of recent years; (ii) increased need for co-operation between various categories of staff, particularly in decision-making; (iii) an improved utilization of resources; and (iv) more flexible training courses. Nurse training has become better co-ordinated on a national basis, and nurses' capacities are utilized more effectively today than 20 years ago. The next development, which can be expected to take place during the 1980s, will be to include the individual citizen in the process of maintaining his own health, and in taking partial responsibility for the treatment process in the event of illness. It will be the duty of the health services to discover and develop such capabilities as each individual possesses. These aims will only be achieved if re-training is regarded as a normal, integral part of every nurse's career. Nurses must expect to learn and re-learn a series of community-related topics such as social studies, administration and leadership, and methods of instruction and evaluation; they must be prepared to contribute to research and development of new ideas and techniques.

493. BLANCHETTE, R. and others. Les soins infirmiers à l'hôpital. **[Nursing care in hospital.]** *Hôpital à Paris*, Paris, 1979, Sept./Oct., no. 53, pp. 367-369.

When 25 nurses in the Assistance Publique in Paris were asked their views on the meaning of nursing care, they described it as: (i) carrying out the doctors' orders and applying the nursing care derived from these; (ii) basic care, such as washing, changing, and diet; (iii) relational care—talking, listening to the patient, maintaining the rhythm of every-day life, in particular for long-stay patients; and (iv) keeping the patients' nursing records. They defined good care as: (i) answering the needs of the patient, bringing about an improvement or alleviation in his condition; (ii) care in accordance with the doctors' orders, and with the rules of asepsis; (iii) supervision of the patient; and (iv) care which respects the patient's physical and psychological comfort. The nurses interviewed felt that they were providing a good standard of care. None of them expressed any interest in methods of evaluating the quality of their work or the more efficient planning of care, nor did they mention the costs of care or any ergonomic questions.

494. NOTTER, L. E. **Essentials of nursing research.** 2nd edition. New York, Springer, 1978. xiii, 178pp. bibliogs. ISBN 0 8261 1592 6

Clinical studies, or applied research, is an expanding area of nursing effort; more nurses are also becoming involved in basic research. Some institutions now employ research consultants to stimulate and guide nurses in the conduct of their studies. The author aims to help both academic and ward nurses in nursing methodology. The chapters on the nursing process include: selecting a problem; literature searching; data collection and analysis; and communicating research findings. There is a glossary and index.

495. BLIN, M., DRUT, L. and ROSSIGNOL, L. Les cadres infirmiers réfléchissent à leur fonction. **[Nursing supervisors reflect on their job.]** *Hôpital à Paris*, Paris, 1979, Sept./Oct., no. 53, pp. 401-406.

The role and functions of the director of nursing were defined by legislation as recently as 1975. The authors suggest that the time has come to re-examine the functions of her immediate subordinates, the senior nursing officers and departmental nursing officers. All these three categories of nursing administrator have a management function; they anticipate, plan, organize, manage, and control and evaluate the human and material resources available. Their function is to ensure that all the patients are given an appropriate quality of nursing care at the most economic cost. The senior nursing officers and departmental nursing officers have to do the following: (i) represent management in the department; (ii) organize continuity and safety of care; (iii) train new staff and provide in-service training; (iv) manage patients, staff, equipment, and the organization of care; and (v) assess staff performance. To carry out their tasks competently, they require additional training; the content of the training given to nursing administrators at the Staff College is briefly outlined.

ANCILLARY STAFF

See Abstract Nos. 526, 578

ORGANIZATION AND ADMINISTRATION

See also Abstract Nos. 484, 489, 518, 598

496. EDMONSTONE, J. D. **Changing hospital organisation using outside consultants: evaluation of one example.** *Hospital and Health Services Review*, London, 1980, Jan., vol. 76, no. 1, pp. 5-8.

In 1976, the Organization Development Unit of the Trent Regional Health Authority studied attempts by a consultancy agent to introduce multidisciplinary management to a 1,200 bed psychiatric hospital. The attempts were carried out between 1971 and 1975 and the agency was the Sheffield region's Industrial Training Service. To gather the necessary data interviews were carried out with hospital and unit staff, and with the management consultant. Although training schemes had been introduced and a clinical unit committee planned, the scheme ended in 1975, owing to shortage of funds and lack of support from staff, who failed to see the connection between multidisciplinary management and urgent problems of improving patient care. However, further evaluations were carried out from 1976 to 1978 by a different body and it was found that the new type of management had made some progress and a few changes. A psychiatric services management team and a clinical management team have been set up. This form of multi-disciplinary management has been more successful because it grew from hospital needs and was not imposed from outside.

497. MCFARLAND, D. E. **Managerial innovation in the metropolitan hospital.** New York, Praeger, 1979. xii, 322pp. bibliog. ISBN 0 03 051341 3 £16.00.

This book is basically a case study of management techniques applied in an American hospital. Interviews are reproduced to illustrate attitudes and problems, and stress is laid on the use of 'human capabilities' to which a chapter is devoted. The book includes a bibliography, almost entirely of American material.

498. MUSSCHOOT, F. Synthese van het IIIde Congres van de Europese vereniging van Ziekenhuisdirekteurs. **[Report on the third conference of the European Association of Hospital Administrators.]** *Hôpital Belge*, Bruxelles, 1979, Nov./Dec., vol. 22, pp. 31-33.

Six criteria for staff management were compared with developments in practice. 1. Recruiting and selection. Too many staff were recruited into the administrative sectors, thus causing shortages and rapid turnover of nursing staff. It was suggested that future selection should concentrate more on the motivation of the candidates. 2. Training. Standards in nursing and para-medical training are being raised, and this causes tension as the medical staff, often demand unnecessarily high qualifications in these sectors and this also increases costs. It was suggested that there should be more concentration on multi-disciplinary training and teamwork. 3. General management. Specific training in hospital management was called for. 4. General management and hospital hierarchy. The autocratic hospital structure is gradually being replaced by a more democratic form of association. This requires better organization of communication, discussion and information. 5. Integration of various departments into the overall hospital organization. Departments and sub-departments tend to develop on their own regardless of

other sections, and overall management should pay attention to better integration. 6. Constant adaptation to technical, economic and social changes. This requires planning of budgeting, staff re-training, counting political costs of economies, and development of cost-consciousness. It was concluded that efficient staff management should aim at motivating staff, getting team co-operation and optimal application of modern medicine to the benefit of the patients.

ECONOMICS OF HOSPITAL MANAGEMENT

See also Abstract Nos. 513, 515, 520, 540, 556, 561, 562, 587

499. STUDNICKI, J. **Multihospital systems: a research perspective.** *Inquiry*, Chicago, Ill., 1979, vol. 16, no. 4, pp. 315-322.

It is evident that research on multi-hospital systems should be focused on their anticipated benefits, which may be grouped as financial economies, improvements in the services rendered, and threshold benefits. However, the words multi-hospital system represent an abstract concept; the complexity of the various associations within this concept results in substantial limitations in its susceptibility to research. The future of productive research in this area probably depends on the ability of investigators to isolate and identify the consequences of individual variables and related viable groupings on certain indicators. Care must be taken to use rigorously selected comparison groups and attempt to generalize from the nature of these limited associations to a wider range of circumstances. It is probably refinements and additions to current knowledge on cost and quality that will constitute the next generation of contributions to the literature of multi-hospital systems.

500. ZUCKERMAN, H. S. **Multi-institutional systems: promise and performance.** *Inquiry*, Chicago, Ill., 1979, vol. 16, no. 4, pp. 291-314.

The problems facing hospitals in the United States have led to a variety of legislative and regulatory schemes. At the same time and to meet the same problems, multi-institutional systems have been growing and developing within the hospital industry itself. This paper reviews the current status of such systems, with particular emphasis upon their promise and performance. Three types of benefits are discussed: economic, manpower, and organizational. On balance, one of the more consistent findings lies in the organizational benefits of improved access, availability and scope of services in previously underserved areas. Manpower benefits have received relatively modest attention, but it is evident that management capability has been enhanced. The evidence on achievement of economic benefits is mixed, at best, and largely in the hotel and support service areas. It is clear that a number of barriers are impeding development of multi-hospital systems and the realization of their potential benefits. Those discussed are antitrust laws, federal tax laws, reimbursement mechanisms, capital requirements, and organizational constraints. There are, however, several areas that might be explored in an effort to increase the potential of multi-institutional systems: (i) horizontal and vertical integration; (ii) academic health centres; and (iii) management and organization. A list of 146 references to the literature is included.

RUNNING COSTS

501. SALKEVER, D. S. **Hospital-sector inflation.** Lexington, Mass., Lexington Books, 1979. xiii, 185pp. ISBN 0 669 00704 8 £13.50

The four chapters in this volume focus on the empirical analysis of hospital cost inflation. Much of the data used comes from the 1960s and reflects the changing emphases of hospital economics over this time span. The first chapter takes a methodological approach to cost-inflation accounting and the effect on hospital costs of medical education. The analysis indicates that medical education activities of hospitals substantially increase their cost per case. In the second and third chapters the primary concern is the influence of forces outside the hospital industry on rising hospital costs and wages, showing that changing factor-market conditions played a role in the inflationary process during the 1960s. The fourth chapter reviews recent econometric research concerning the effects of rate-setting programs on hospital costs and critically reviews the methods used in these studies.

BED OCCUPANCY, ECONOMIC USE OF BEDS

See also Abstract Nos. 581, 591

502. CHASE, M., LASZLO, C. and UYENO, D. **Modelling a hospital entrance system.** *Dimensions in Health Service*, Ottawa, Ont., 1980, Jan., vol. 57, no. 1, pp. 16, 18-20.

This paper describes the application of computer simulation techniques to bed allocation, operating theatre scheduling and utilization problems at St. Paul's Hospital, Vancouver. The model was designed to produce a realistic simulation of events in the hospital and allow for variations that might arise due to controlled modifications in hospital policy or structure, or due to unexpected changes outside the hospital environment. Four primary sources of data were used: a magnetic tape of patient census data; copies of completed surgical slates; emergency admission forms; and medical/surgical admission booking forms. The model has already been used for several experiments, including: the effect of a scheme of bed reallocation among service areas; the combination of orthopaedic and ENT bed, areas keeping the total number of beds constant; and the effect of classifying fewer patients as emergencies while holding the total number of admissions constant.

EMERGENCY ADMISSION, EMERGENCY BED SERVICES

See Abstract No. 576

APPOINTMENT SYSTEMS, WAITING LISTS

See Abstract No. 502

ELECTRONIC DATA PROCESSING

See also Abstract Nos. 504, 507, 508

503. STAKENBERG, H. and WILDEMANS, J. Mogelijke toepassing van computers in de zwakzinnigeninrichting. **[Possible uses of computers in institutions for the mentally handicapped.]** *Ziekenhuis*, Utrecht, 1980, Feb. 20, vol. 10, no. 4, pp. 106-107.

Data on the mentally handicapped patient and his environment falls into three groups: (i) medical, such as changes in medication, physiotherapy results, physical progress, etc.; (ii) social, such as group contacts, work therapy, observation reports, etc.; (iii) administrative, such as patients' finances, holidays, etc. All data are usually stored centrally and any information required can be supplied faster, more simply and more fully by computer than by manual methods. Patients' privacy should be safeguarded and rules will have to be agreed. In summary, the use of a computer can result in simpler and more efficient working methods, more comprehensive and quicker access to selected information and better data for inter-disciplinary research.

LIBRARIES AND INFORMATION SERVICES

504. SCHNEIWEISS, F. **Literature searching by computer in a university-based drug information center: format of pharmacist-generated input data.** *Hospital Pharmacy*, Philadelphia, Pa., 1979, Dec., vol. 14, no. 12, pp. 732-735.

The Drug Information Centre of Northeastern University College of Pharmacy and Allied Health Professions in Boston has recently installed a computer system that makes possible on-line and off-line searches of literature in various data bases. The hardware capabilities include: (i) displaying results on a CRT and printing them on a teleprinter; (ii) control of externally located television monitors; and (iii) storage of data on cassette tapes. The Centre subscribes to Bibliographic Retrieval Services, which allows searching of 20 data bases, but Medline accounts for a large majority of all searches performed. Those requiring a search complete a detailed form, a copy of which is included at the end of this article. Payment for a search by outside bodies is by contractural agreement or a fee per search and results are obtained within 24 hours; less for an internal request. The Centre hopes to make: (i) a comparison of results obtained with and without the computer; and (ii) a comparison of results generated by a terminal operator who is a pharmacist and one who is not.

MEDICAL RECORDS

See also Abstract No. 524

505. ALTMAN, J. H. and others. **Patients who read their hospital charts.** *New England Journal of Medicine*, Boston, Mass., 1980, Jan. 17, vol. 302, no. 3, pp. 169-171.

Eleven patients at the Peter Bent Brigham Hospital, Boston, who asked to read their medical charts during a six month period, were interviewed and compared with

16 similar patients who had read their records during the past three years. Both groups were young, mostly women and had personality disorders. They mistrusted the staff, accusing them of regarding their illness as unreal. Some patients feared that information about their illness was being withheld from them. Of 10 patients with self-induced illness, nine reacted angrily towards their records, but those with psychological problems in the ward who were worried about their prognosis, tended to be reassured by the opportunity to read their charts and doctor-patient relationships improved. In the remaining cases, no noticeable benefit or harm resulted from the experience. The hospital now reminds patients on admission of their right to read their records, but patients who trust the staff do not tend to want to do so.

506. ROWE, R. G. **The importance of the medical record.** *Middle East Health*, Morden, 1980, Feb., vol. 4, no. 2, pp. 18-20.

A well-kept and detailed medical record is of value not only to the clinician. When integrated with other data it can provide information about the health of a community, the nature and prevalence of a disease or condition, provide material for research, and of course be the basis of countrywide statistics. This paper describes, with particular reference to practice in the United Kingdom, the content and uses of the medical record, its confidentiality and its place in information services.

507. MARLE, M. van. Een analyse van het medisch archief van een ziekenhuis. **[An analysis of a hospital's medical records.]** *Ziekenhuis*, Utrecht, 1980, Feb. 20, vol. 10, no. 4, pp. 104-106.

This is a description of the medical record department of the 437-bed 'Sint Geertruiden' Hospital, Deventer. The object was to improve efficiency as the department was not allowed to increase its staff of eight in spite of an increasing volume of work. Each patient's file contains polyclinical records, clinical records, and correspondence in separate sections. During 30 days the movements of files were accurately recorded. The average number of registered files requested daily was 427.36, of which 80 per cent were readily available and the remaining 20 per cent were either with the relevant specialist department (12 per cent), in other departments (7.97 per cent), or could not be found (0.03 per cent). The number of new registrations was recorded, as were the numbers of files stored after discharge, post-clinical check of files, return of files after surgery hours, and requests by telephone. The authors also recorded the amount of time spent on entering results of various tests, keeping the card system up to date, preparing blank files, searching for lost files, and transport. The result was an overhaul of procedure, which included separation of urgent and non-urgent requests, concentration of new patient registrations into one office, mechanical preparation of blank files, and the use of a mini-computer for the card filing system. All record users were informed of the new procedure. After one year it was found that in spite of an increase of 20 per cent in work volume the staff of eight could comfortably handle the workload.

508. RICHLING, B. and LANDSCHÜTZER, G. Zur elektronischen Verarbeitung klinischer Daten im Krankenhausbetrieb. **[Electronic data storage in hospitals.]** *Wiener Medizinische Wochenschrift*, Wien, 1980, Jan. 15, vol. 130, no. 1, pp. 11-13.

Computers have so far found only limited acceptance in the clinical field. This paper describes the use of a computer at the Hospital for Nervous Diseases at Salzburg. An

input terminal has been installed in the neurosurgical department which links up with the computer centre. Data from the first clinical examination of the patient is fed by the examining doctor, by means of the typewriter keyboard, into the input terminal, using an alphabetical and numerical key. Findings are printed by the computer in grammatically correct form. Machine storage of the data allows rapid retrieval of individual findings and simple statistical evaluations. Specimen in-puts and print-outs are reproduced in the paper.

HOSPITAL STATISTICS

509. DENSEN, P. M. and others. **The collection of data on hospital patients—the Massachusetts health data consortium approach.** *New England Journal of Medicine*, Boston, Mass., 1980, Jan. 17, vol. 302, no. 3, pp. 171-173.

The Airlie House conference of 1969 in the United States explored ways of co-ordinating health information systems, with particular reference to hospital patient discharge data. The United States Committee on Vital and Health Statistics developed a set of data on individual discharge patients known as the Uniform Hospital Discharge Data Set, which has been used as the basis of patient data systems across the country. The Massachusetts Health Data Consortium was developed from a number of member organizations, including the Massachusetts Department of Public Health, which all have a financial commitment to the Consortium and contribute to its stability. The Consortium has contractual agreements with hospitals and other sources of patient discharge data and a computer re-arranges the data as required. The first report issued by the Consortium will consist of a statewide patient origin study of acute care hospitals and will be used to determine bed and service needs.

ETHICAL ASPECTS OF HOSPITAL ADMINISTRATION

510. O'BRIEN, M. and MAHADEVAN, S. **Clinical research and its ethical control.** *Hospital and Health Services Review*, London, 1980, Feb., vol. 76, no. 2, pp. 54-58.

This paper discusses some aspects of medical ethics and their application to clinical research, with special reference to the work of ethical committees in the Northern Regional Health Authority. The recent expansion of clinical research has made adequate safeguards for patients, volunteers and researchers necessary. An early attempt to define rules to govern research was made in the Nuremberg Code, and the Royal College of Physicians and the British Medical Association have adopted the subsequent Helsinki Declaration into their own recommendations. The author considers the role of the following categories in their responsibility for clinical research: (i) the Department of Health and Social Security; (ii) the Area Health Authority; (iii) the Regional Health Authority; (iv) the medical press; and (v) the individual doctor. Factors to be considered in the ethical control of clinical research include: (i) the design of the research; (ii) the qualifications and motives of the investigator; (iii) review by an ethical committee; (iv) consent of the patient or volunteer; and (v) the subject's freedom to withdraw consent during any stage of the research.

FINANCE AND ACCOUNTING

FINANCE

511. FARRELL, M. and ECKERT, J. **Zero-based budgeting in nursing education.** *Nursing Outlook*, New York, 1979, Dec., vol. 27, no. 12, pp. 792-795.

Zero-based budgeting involves the identification of a series of activities or services needed to fulfil a goal and writing a brief description of the activity from scratch. Each discrete activity is outlined and labelled as a 'decision package'. Each decision package is analysed according to the following consideration: (i) purpose of the activity; (ii) consequences of not performing the activity; (iii) alternative ways of performing the activity; and (iv) empirical and subjective costs and benefits of the activity. The results are evaluated and the functions ranked; they are then sent to higher management for consideration; the setting of priorities, and allocation of budgetary resources. The paper describes the experience of one school of nursing with the use of zero-based budgeting to consider the introduction of a course to enable registered nurses to acquire a bachelor's degree. Zero-based budgeting has some drawbacks, but if these can be overcome, the process can substantially improve decision-making.

512. DESTREM, H. Du budget au prix de journée ou du prix de journée au budget? **[From the budget to daily costs or daily costs to the budget?]** *Gestions Hospitalières*, Paris, 1979, Nov., pp. 851-865.

The French Minister of Health is soon to decide between two formulae for financing public hospitals: (i) a charge per day per patient for each individual service rendered, and (ii) the 'global budget', wherein the total amount allocated to each hospital is decided in advance and paid each month by the insurance funds on the basis of forecasts of how many contributors to each fund will use a particular hospital. From a close analysis of the legislative texts already available, the author is convinced that the Minister will opt for the latter alternative. In a forthright and detailed critique, the author describes what he sees as the defects of this particular formula, from the point of view of a hospital administrator. He proposes an alternative scheme which would combine the advantages of (i) and (ii).

COSTS

See also Abstract Nos. 462, 488

513. MCMAHON, J. A. **Cost containment—an overview of US experience.** *World Hospitals*, London, 1979, Nov., vol. 15, no. 4, pp. 229-231.

The system of health care in the United States developed and grew in line with the economic and social system during the first 200 years of that country's existence. In the

mid-1970s, the rate of economic expansion began to slow down, and it became necessary to slow down the rate of increase in health care costs. The key issue in the United States is who will manage the slow-down: the government, the providers of care themselves, or some combination of both. The mixture of governmental control and private cost containment activity that now exists is discussed under three headings: capital controls; utilization controls; and budget controls. These controls have had no marked effect on the rate of increase in costs. Despite organized and co-ordinated voluntary efforts, the government proposes to put a Hospital Cost Containment Bill before Congress. This bill seems inequitable and unworkable to the hospitals. The implications for the future are discussed, with particular reference to the issue of national health insurance.

514. ROBERTS, I. and SIMON, J.-M. **Summary of discussion Group C—cost containment and quality control.** *World Hospitals*, London, 1979, Nov., vol. 15, no. 4, pp. 235-239.

The papers presented to Discussion Group C of the 21st International Hospital Congress, Oslo, 1979, are summarized in two parts—English papers and multilingual papers. A basic assumption underlying all the papers was the idea that the problems of containing costs and controlling quality are susceptible to positive action based on a more rational approach, and should be subjected to such action. Concluding thoughts to the summary of English papers deal with the potential value of operational research and epidemiology, the impact of technology, and the need to focus on the individual patient. In the multilingual sessions, the elements of the beginning of a policy were described. The objectives of such a policy are discussed under the headings: financing the health services; reconciling hospital growth with economic growth; encouraging hospitals to make voluntary savings; and setting future priorities for cost containment and quality of care.

515. SANDIER, S. **The development of hospital activity and hospital costs.** *World Hospitals*, London, 1979, Nov., vol. 15, no. 4, pp. 222-225.

In France, as in other countries, medical care costs are rising and represent an increasing proportion of the gross national product. At the same time in-patient services have been taking up a large share of the costs. This paper examining the causes of this increase in the case of public general hospitals in France by considering the volume and cost of the factors in the growth of hospital costs and relating them to the development of hospital activity. On the one hand a stay in hospital involves more care concentrated over a shorter period under more comfortable conditions; on the other out-patient care forms an increasing part of hospital production contributing to the development of the needs of the hospital clientele towards more diagnostic tests and shorter stays. These changes in hospital production have been accompanied by an increase in the factors of production: more technical equipment, more staff and also more intermediate goods and services. Developments in staffing and the other factors have been parallel and it does seem as if, in the hospital sector, no significant substitution can be observed between capital and labour. To opt for a fixed rate of growth in hospital costs would mean indirectly fixing a rate of advance for hospital production.

HOSPITAL ACCOUNTING

516. CLIFF, K. S. **Accounting for accidents.** *Health and Social Service Journal*, London, 1980, March 7, vol. 90, pp. 323-325.

A study of the effect of road traffic accidents on the resources of a large Area Health Authority was undertaken for the years 1974 to 1976 inclusive. The following sources of data were used: (i) hospital activity analysis data; (ii) the accident and emergency record books; and (iii) ambulance service data. Cost account figures used were provided by the Regional Health Authority for the financial years 1974-75, 1975-76 and 1976-77. The figures used in the study are set out in six tables. About 25 per cent of patients reporting to emergency departments after a road accident were admitted and 49 per cent required continuing out-patient care. Road accident casualties accounted for 1.8 per cent of total ambulance service work. The average cost to the authority measurable from routine sources was £594,404 over the three year period. For the financial year 1978 to 1979 it is estimated that the measurable costs will be £750,000. The study suggests that there is an urgent need to examine preventive measures to reduce the number of road accidents.

517. AUSTRALIAN INSTITUTE OF HOSPITAL ADMINISTRATORS. NEW SOUTH WALES BRANCH. **Bank agencies in hospitals, by A. E. Bright; staff identification and security, by R. E. Tindale; the need for orientation in induction programmes, by D. Stinson and W. Cahill.** [Canberra], Australian Institute of Hospital Administrators (N.S.W. Branch), 1978. 15pp. (Administrative Study Booklet No. 2)

Little research has been done on the advantages of permanent banking facilities in hospitals for staff, patients and visitors. The ability to cash cheques and make deposits without leaving the grounds can save staff time and reduce the risk of theft. Payment of staff by cheque becomes universal, since they can cash them on the premises; this eliminates the need for pay-out staff, security delivery costs and enveloping costs for the hospital. Revenue may also accrue to the hospital from rent.

SUPPLIES AND STORES

SUPPLIES

518. WILLIAMSON, H. **Time for change in supply organisation.** *Hospital and Health Services Review*, London, 1980, Feb., vol. 76, no. 2, pp. 49-51.

The author maintains that central supply units serving over 10,000 hospital beds can make substantial savings as well as ensuring the flow of goods needed for patient care. The information systems needed for efficient and cost-saving supplies organization are feasible only in large units. Other benefits might include commitment accounting and automatic invoice processing. The formation of supply units of this size would mean there would be about 40 in the country, an average of three per region with each unit serving three to four local health authorities. Management at regional level could co-ordinate the activities of the units with regard to contracting, purchasing and

stockholding. In turn, regional activities would require control from a national Supply Executive of qualified supplies staff. The kind of organization suggested would reconcile the need for devolved administration in the health service with the requirement of a centrally co-ordinated supplies service.

PURCHASING

519. DANSK SYGEHUS INSTITUT. Indkøbsfunktionen på et sygehus. Del 1. Metode til beskrivelse af indkøbsfunktionen på et sygehus. **[Hospital purchasing. Part 1: method for describing hospital purchasing.]** København, Dansk Sygehus Institut, 1979. 47pp. (Projektrapport 79.06) ISBN 87 7488 0217 Kr.45.00

The Danish Hospital Institute has developed a method for the description of hospital purchasing and has tested this method in collaboration with the Central Hospital in Holstebro. The aim of carrying through a systematic description of hospital purchasing is to acquire and improve the knowledge that is necessary for effective purchasing activities. The five chapters discuss: (i) the aspects of the hospital purchasing in question; (ii) the Central Hospital in Holstebro and its purchasing organization; (iii) the basis of the method used; (iv) the implementation of the description of hospital purchasing, explained in stages; and (v) how purchasing organization is carried on.

CATERING, DIETETICS, KITCHENS

HOSPITAL CATERING

520. BROWN, A. H. **Technique caters to hospital needs.** *Health Care*, Don Mills, Ont., 1980, Jan., vol. 22, no. 1, pp. 28, 29, 31.

Efficient catering may be measured by the quality of the service provided and the use of resources that provide the service. The author sets out a plan to establish a viable catering system: (i) collection of data such as staff output, duty schedules and plan of work; (ii) method study, that is, finding out where improvement could be made; (iii) work measurement for each area of kitchen activity as a basis for job study sheets; and (iv) control guidelines, by the use of proformas to establish staffing levels for different tasks at various times of the day. This type of planning allows for an arrangement of work load whereby meals can be ready when they are required and new menus may be introduced and costed. The data is also useful at the design stage when alternative methods of preparing and serving food are being considered.

KITCHENS

521. KUNTZ, E. **Hospital kitchen designs revolve around inhouse food preparation.** *Modern Healthcare*, Chicago, Ill., 1979, Dec., vol. 9, no. 12, pp. 68-70.

In order to cut costs and control quality, hospitals are going back to preparing most patient and staff food themselves and are designing their kitchens accordingly. It has

been estimated that preparing meals in a hospital kitchen generally costs about 30 per cent less than buying them pre-prepared. Some opinions of the two systems are considered, with emphasis on the effect of design and equipment of kitchens. Plans of a modern kitchen and a cafeteria are included.

HYGIENE IN THE HOSPITAL KITCHEN

522. COOKE, E. M. and others. ***Klebsiella* species in hospital food and kitchens: a source of organisms in the bowel of patients.** *Journal of Hygiene*, Cambridge, 1980, Feb., vol. 84, no. 1, pp. 97-101.

Three surveys are described which were designed: (i) to examine the extent of *Klebsiella* in food prepared in a hospital kitchen; (ii) to define where food became contaminated; and (iii) to determine whether ingestion of Klebsiellas could lead to colonization in the intestines. Salads, especially after preparation in the kitchen, and cold meat were most frequently contaminated. *Klebsiella* species were widely distributed in the kitchen environment, which was considered to be the main source of the organisms in food. By the use of serological and bacteriocin typing, carriage through the intestines of strains found in food could be demonstrated. A total of 62 different serotypes were found in the food and in the kitchen environment and no one serotype predominated.

HOSPITAL DOMESTIC MANAGEMENT

See Abstract Nos. 472, 526, 530

HYGIENE IN THE HOSPITAL

HOSPITAL INFECTIONS

523. FREEMAN, J., ROSNER, B. A. and MCGOWAN, J. E. **Adverse effects of nosocomial infection.** *Journal of Infectious Diseases*, Chicago, Ill., 1979, Nov., vol. 140, no. 5, pp. 732-740.

A bed-by-bed prevalence survey of hospital infection in the 645 patients in Boston City Hospital in January and February 1973 identified 97 patients with active infection; 85 of these were located in the lists of discharges provided by the Massachusetts Hospital Association (MHA) subscription information service. For each of the 85 patients, two matched control patients were selected from the MHA line listing. Patients with a single infection remained in hospital on average 13 days longer than their matched controls, and those with two such infections stayed on average 35.4 days longer. This effect of extra stay associated with hospital infection was consistent when data were stratified by primary discharge diagnosis, hospital service, site of infection, or outcome of hospital stay. The outcome of the stay in hospital was slightly, but not significantly, worse than for their matched controls.

524. WENZEL, R. P. and others. **Development of a statewide program for surveillance and reporting of hospital-acquired infections.** *Journal of Infectious Diseases*, Chicago, Ill., 1979, Nov., vol. 140, no. 5, pp. 741-746.

The State of Virginia has 129 licensed hospitals with approximately 23,000 beds, to which 650,000 patients are admitted annually. In September 1974 the University of Virginia Medical Center, with the support of the Virginia State Health Department, began to teach to infection control practitioners an efficient system of surveillance of hospital-acquired infections which had proved to be 82 per cent accurate. After training, they were encouraged to submit monthly surveillance reports for analysis. Of the 98 Virginia hospitals that sent students, 72 (73 per cent) submitted monthly reports. The consistency of reporting (number of monthly reports received divided by the number of possible reporting months) was 83 per cent. The crude infection rate for the first 1.1 million patients at risk was 3.3 per cent.

PREVENTION AND CONTROL

See also Abstract Nos. 472, 540, 553, 590

525. LECLAIR, J. M. and others. **Airborne transmission of chickenpox in a hospital.** *New England Journal of Medicine*, Boston, Mass., 1980, Feb. 21, vol. 302, no. 8, pp. 450-453.

Chickenpox developed in a three-year-old girl with transverse myelitis (index case) during her hospital stay, while she was receiving prednisone, 2 mg per kg of body weight per day. Two days later she was transferred, wearing a face mask, into isolation in a room in a ward four floors away. She died after eight days of intensive care that included respirator-assisted ventilation. Ten days after her death a case of chickenpox occurred on the ward, and within a short time several other secondary cases became known. Exhaustive investigations did not produce any evidence that chickenpox was spread by staff. It probably resulted from an unusual combination of factors that favoured airborne spread, and control of chickenpox and other airborne hospital infections illustrated by the outbreak are discussed.

526. THOMAS, J. Es ist nicht alles Gold (oder hygienisch) was glänzt. **[All that glitters is not gold (or hygienic).]** *Krankenhaus-Umschau*, Kulmbach, 1979, Dec., vol. 48, no. 12, pp. 996, 999.

From the point of view of hygiene and the spread of infection, floor disinfection is not so important as the disinfection of instruments, apparatus, and such items as beds, bedside tables, toilets and washrooms. Cleaners should be subjected to bacteriological examination regularly (perhaps twice a year). The employment of cleaners for very short periods to avoid social security payments carries risks: if for example three cleaners are employed for two hours each (and probably without bacteriological examination) the risk of the spread of infection is three times greater than if one cleaner is employed for six hours.

527. BAIRD, R. M. and others. **Contaminated medicaments in use in a hospital for diseases of the skin.** *Journal of Hygiene*, Cambridge, 1980, Feb., vol. 84, no. 1, pp. 103-108.

A total of 192 topical medicaments used by patients with diseases of the skin were examined for microbial contamination. Products packed in stock pots were more frequently found to be contaminated with *pseudomonas aeruginosa* or *staphylococcus aureus* than those packed in tubes. During a second examination, *Ps. aeruginosa* was isolated from samples of a diluted ointment used from a large container as a soap substitute. Contamination was also found in baths and on the skin of patients, indicating that cross-contamination was occurring between medicaments and patients, and between one patient and another. There is a strong case for supplying these medicaments in individual containers for single use only and in a form not requiring dilution. This is especially important among patients with skin disease, as the survival rate of *Ps. aeruginosa* increases on a damaged skin.

528. SCHAAF, D. Aktuelle Probleme bei der Anwendung von Desinfektionsmitteln im Krankenhaus. **[Current problems in the use of disinfectants in hospital.]** *Deutsche Krankenpflege Zeitschrift*, Stuttgart, 1980, Feb., vol. 33, no. 2, pp. 78-80.

Hand disinfection is still the simplest, most effective and cheapest means of preventing cross infection. The fact that these infections still occur is due to ignorance, carelessness or lack of motivation. The method of choice is rubbing the hands with alcohol preparations. But non-contamination is better than disinfection: this can be achieved by avoiding unnecessary contact with 'dirty' material and wearing rubber gloves when such contact is necessary. Disinfection of instruments, next in importance, plays a main role in the prevention of hospital infections: when purchasing regard should be paid to their 'disinfectability'. Surface disinfection need only be applied where it is really necessary (eg in operating theatres and intensive care units). It is important that the whole hospital staff has adequate training in hygiene. The paper includes a table showing the substances to be used, and the method of application, for the disinfection of hands, surfaces, floors and instruments.

529. NIEHUES, U. Erfahrungsbericht nach einer dreijährigen Tätigkeit als Hygienefachschwester. **[A report on three years work as a hygiene nurse.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1980, Feb., vol. 33, no. 2, pp. 83-90.

A qualified nurse, with specialist training, reports here on her three years' experience as a hygiene nurse in the Women's Department of Tübingen University Hospital. There was at first some resistance to her appointment and activities, but it was accepted that a specially qualified person who could share responsibility for the promotion of hygiene was advantageous. As an example, Pseudomonas infections of the urinary tract were reduced from 9.7 per cent in 1976 to 1.3 per cent in 1978. The incidence of post-operative wound infection was significantly reduced over a three-year period. The forms used for recording hospital infections, and for the monthly report on them, are reproduced along with tables showing the hygiene measures adopted in the maternity and gynaecology departments, the delivery rooms and the operating suite.

530. OLSEN, W. A. **The improved Kelsey-Sykes test for disinfectants: an outline of its development and proposed modifications.** *Australian Journal of Hospital Pharmacy*, Heidelberg, Vict., 1979, Dec., vol. 9, no. 4, pp. 127-133.

There is still a great need for a standard disinfectant test which can be used for the evaluation or assessment of disinfectants under use conditions. The commonly used phenol co-efficient tests have been criticized. It has been claimed that the Kelsey-Sykes test is suitable, and the performance of the 1974 improved Kelsey-Sykes test in evaluating a wide range of commonly used disinfectants is discussed. Modifications which might increase test reproducibility and give more realistic assessment of the practical use concentrations, as well as the possibility that the test may be given wider application than just for the assessment of hospital disinfectants, are considered. It is concluded that the Kelsey-Sykes test would appear to be a satisfactory test, although perhaps some modifications may be necessary.

HYGIENE IN THE OPERATING THEATRE

531. BURT, J. L. and TURPIN, D. A. **Prevention of surgical wound infections in operating rooms.** *Royal Society of Health Journal*, London, 1980, Feb., vol. 100, no. 1, pp. 21-25, 33.

As post-operative wound infection doubles the post-operative stay and increases hospital costs, expensive measures of prevention are justified. Means of control include: (i) the use of special wound drapes and protectors; and (ii) the use of systemic agents or antibiotics to increase resistance at the wound-microbe interface. Environmental sources of bacteria are generally caused by such factors as mechanical failures in sterilizing utensils or defects in air filtering devices in the operating theatre's ventilation air supply. Laminar flow techniques and pre-operative sterilization of room air are two important developments preventing environmental infection. Operating room nurses must know the most effective disinfectants and antiseptics to destroy the bacteria and viruses most commonly encountered in the operating area. Catheters and inhalation therapy machines are potential sources of infection and the latter should be cleaned with acetic acid and every removeable part sterilized. Removal of skin bacteria from staff is aided by antiseptic agents and impervious shoe covers should be worn in clean zones. Floors should be sprayed with disinfectant and cleaned with a wet vaccuum after every operation. A copy of the Infectious Disease Control Program for Operating Rooms used at the Bristol Memorial Hospital, Bristol, Tennessee, is included as an appendix.

AIR HYGIENE

See also Abstract No. 483

PERSONAL HYGIENE OF THE PATIENT

See Abstract No. 470

DISPOSAL OF WASTE

See Abstract No. 471

SAFETY MEASURES

ACCIDENTS, GENERALLY

532. THIBON-GUIRAUD, J. Projet de formation a la manutention des malades dans un C.H.U. **[Training on moving patients at a Regional Teaching Hospital.]** *Techniques Hospitalières*, Paris, 1980, Feb., vol. 35, pp. 53-56.

A group of nurses, ambulance men, physiotherapists, and nursing auxiliaries attended a week-long training course at the Physiotherapy Training School at Montpellier, to learn how to lift patients correctly without injuring either themselves or their patients. They were then to pass on their knowledge to their colleagues when they returned to their own hospitals. The members of the group were first divided into pairs and practised lifting, turning, and raising each other on a wooden table, learning how to use the body weight rather than strength. They then practised on patients in bed and were given some physical training. The theoretical instruction was given only at the end of the week; films and slides were used and the anatomy of the bones and muscles was demonstrated. It was intended that the trainee should then know in theory what he had been learning in practice. The author believes that it is essential to start with the practical instruction and only give the theory at the end. This account includes four diagrams which were used in the course and which illustrate various lifting techniques.

ACCIDENTS IN GAS AND DRUG ADMINISTRATION

See Abstract Nos. 468, 469

FIRES AND FIRE PREVENTION

533. VOLZ, S. Umgang mit tragbaren Feuerlöschern im Krankenhausbereich. **[Handling portable fire extinguishers in the hospital.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1980, Feb., vol. 33, no. 2, pp. 92-97.

The various types of portable fire extinguisher suitable for hospital use are described and illustrated. Four types of fire are distinguished: flammable solids (A), flammable fluids (B), flammable gases (C), and flammable light metals (D). The following five types of extinguishers are described and the type of fire for which they are suitable given: water extinguishers (A); foam extinguishers (A and B); powder extinguishers (A, B, C and D); carbon dioxide extinguishers (B and C); and halon extinguishers (B and C). It is stressed that the use of these extinguishers does not remove the need to inform the fire services immediately of any outbreak.

RADIATION HAZARDS

534. MINDER, W. and OSBORN, S. B. **Manual on radiation protection in hospitals and general practice. Volume 5. Personnel monitoring services; jointly sponsored by International Labour Organization, International Atomic Energy Agency and the World Health Organization.** Geneva, WHO, 1980. 56pp. ISBN 92 4 154042 7 Sw.fr.9.00

This volume attempts to review in an objective manner the problems involved in

establishing personnel monitoring services for health care workers, with particular reference to developing countries. The different techniques described and compared are film badges, thermoluminescent dosimetry, phosphate glass dosimetry, and ionization chambers. The problems of calibration and accuracy are discussed and a chapter is devoted to evaluation of radiation dose.

THE PATIENT

WELFARE OF THE PATIENT

See also Abstract Nos. 456, 505, 557, 560, 566, 578, 588, 595-597

535. OLBING, H. Ausländerkinder in der Klinik. **[Foreign children in hospital.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1980, March, vol. 33, no. 3, pp. 163-167.

There are in West Germany about one million foreign children, of whom about 400,000 are under six years old. About 100,000 children are born every year to foreign workers. This paper is concerned with conditions in Essen where the children's department of the University Hospital admitted 311 in-patients in 1975: this represents 3.54 per cent of the 8,777 foreign (particularly Turkish) children in the city (compared with admissions of 1.58 per cent of German children). The need to take account of language difficulties, eating habits, religious beliefs, and differing family hierarchies when caring for these foreign children is stressed. It is suggested that it might be useful for nurses to take a holiday in Turkey in order to get to know the homeland of their patients. There are a number of tables giving comparative figures of German and foreign children in the Essen hospital: these cover age structure and incidence of certain diseases.

536. ORTH, G. Humanität im Krankenhaus—Schlagwort oder Aufgabe? **[Humanity in the hospital: a slogan or a duty?]** *Krankenhaus-Umschau*, Kulmbach, 1979, Dec., vol. 48, no. 12, pp. 949-953.

The modern hospital with its increasing size, growing use of technology and increasingly specialist staff has a tendency to treat the patient more as a number or a 'case' than as an individual. A list of urgent recommendations from a working party set up at the beginning of 1979 includes the following: better communications between the health professions both inside and outside the hospital; promotion of communication with patients by further training of doctors and nurses; and the construction and staffing of hospitals should be better attuned to the fact that more than half of the total number of deaths take place in hospital. The important part that voluntary workers can play in the non-medical and non-nursing care of patients is stressed. The therapeutic team should include doctors, nurses, social workers, chaplains and voluntary workers.

537. KELLAM, A. **Problems of consent in the mentally impaired.** *MIMS Magazine*, London, 1980, Feb. 15, pp. 25-28.

Patients usually decide for themselves whether to consent to treatment, but a problem arises with the mentally impaired. This paper discusses some of the difficulties which

arise, including those related to consent to prefontal leucotomy and electroconvulsive therapy. It outlines the conditions that the law already lays down. These provisions by no means solve all problems, particularly from the ethical viewpoint. The issue of consent is never black and white, but necessitates very careful consideration of each case. Wisely the law has given medical practitioners considerable latitude within which they have to be guided by the honourable traditions of the medical profession and their own consciences. In addition, doctors must always be vigilant if they are to ensure that their patients are dealt with fairly by society, particularly when the patients' intellect is permanently limited.

VOLUNTARY SERVICE, VOLUNTARY WORKERS

See Abstract No. 593

HOSPITAL SOCIAL WORK

538. GWINN, M. E. and others. **On call is not enough: social workers in ED.** *Hospitals*, Chicago, Ill., 1979, Dec. 1, vol. 53, no. 23, pp. 73-75.

Of a total of 2,214 patients seen in the emergency department of the University of Kansas Medical Center in August 1977, 320 would have been referred to a social worker had one been on duty in the department itself. The need for social services varied with the time of the day and the day of the week. Among the 320 potential referrals, 370 problems were identified, 50 per cent of which were critical rather than long term. Sixty-two cases needed general counselling to direct them to more suitable resources. Partly as a result of the study, social work graduate students, with supervisors on call, had been hired by the centre to cover times of peak need and the management of cases involving long term problems is now more effective. A social worker on duty means that people involved in a crisis such as assault, suicide or serious injury can be helped quickly. Assessment, referral and follow-up carried out by social workers for a variety of problems frees medical staff to meet medical needs and allows patients to be referred to appropriate community resources.

TRANSPORT OF PATIENTS

See also Abstract No. 584

539. ROCKELL, B. **You'll never find the ideal ambulance.** *St. John Review*, London, 1980, Feb., vol. 53, no. 2, pp. 28-30.

Despite its limited comfort, a vehicle based on a light commercial style chassis is needed to accommodate the necessary equipment for a modern ambulance. A composite body made of glass fibre reinforced plastics allows for durability and flexibility in design. Ambulance bodies now exceed the cost of the chassis and will outlast it. A few vehicles for sitting cases are available, but most ambulances need to take both emergency stretcher and sitting transport cases and are not really suitable for this dual role. Trolley stretchers help patient comfort but are not as easy to handle as a stretcher with a retractable undercarriage. A number of points are made about in-

dividual ambulances to help organizations like the St. John Ambulance Brigade to choose, but makers are generally limited to health service requirements. The Ford Transit and Bedford CF are popular. Most other makes are van conversions or adapted estate cars, providing limited space at a relatively high cost.

HOSPITAL CARE

See also Abstract Nos. 474, 493, 532, 570, 579, 580, 586

540. BAND, J. D. and MAKI, D. G. **Safety of changing intravenous delivery systems at longer than 24-hour intervals.** *Annals of Internal Medicine*, Philadelphia, Pa., 1979, Aug., vol. 91, no. 2, pp. 173-178.

Routinely changing the intravenous delivery system (fluid containers and administration set) every 24 hours is widely practised in American hospitals to reduce the risk of septicaemia caused by contaminated infusate. A clinical study was undertaken to ascertain whether changing at longer intervals could be justified. At the conclusion of infusion therapy through one system, both the cannula and a sample of remaining fluid were cultured. Of 790 infusions, contaminated infusate was detected in one (0.39 per cent) of 258 samples taken after one to 24 hours of continuous use, three (0.84 per cent) of 359 after 25 to 48 hours, and one (0.58 per cent) of 173 after 49 to 71 hours; none of these five contaminated systems produced septicaemia. However, five cannula-related septicaemias were identified during the study, none associated with concordant contamination of infusate. Routinely replacing the delivery system every 48 hours seems to be justified and could result in considerable savings to hospitals. Infection of the cannula wound and contamination of infusate seem to be unrelated.

541. KURELLA, S. **The social needs of patients and their satisfaction with medical care: a survey of medical in-patients in the county hospitals of the German Democratic Republic.** *Social Science and Medicine*, Oxford, 1979, Nov., vol. 13A, no. 6, pp. 737-742.

The therapeutic and social aspects of patient satisfaction with care were investigated by a survey of medical in-patients in 21 county hospitals in the German Democratic Republic. There were 3,185 completed questionnaires, a response rate of 55 per cent. The main aim was to establish how important a part fulfilment of social needs had to play in satisfaction with care. Social needs were defined as a need to communicate and to be socially active as health improved. Overall, reported satisfaction was high, especially in wards where staff communicated well with each other and care was patient-oriented. Two frequently criticized aspects of care were: (i) the inadequate introduction of new patients to the routines of hospital life, and (ii) inadequate communication between staff and patients. It was found the fulfilment of social needs is very important, both for the patient's recovery and for his general satisfaction. Such satisfaction should be an important factor in measuring the quality of care.

542. WEST, A. **Patient into person.** *Nursing Mirror*, Sutton, 1980, Feb. 21, vol. 150, no. 8, pp. 32-34.

This paper describes how the nursing process was implemented in an acute neurosurgical ward at Atkinson Morley's Hospital, Wimbledon. The first step was an

assessment of the ward area, which fell into three categories: areas over which the ward sister has no direct or intermediate control; areas over which the ward sister has some control; and areas which the ward sister controls. From this assessment, a number of problems were identified. The following very broad objectives were then agreed: to improve patient care; to increase job satisfaction; and to produce a workable nursing process for all grades of nursing staff. All staff were involved in planning the implementation of the nursing process. The nursing process paperwork was introduced for all new admissions, but the new philosophy of patient care was applied to all the patients on the ward. The ways in which the objectives have been achieved are listed, and some remaining hurdles mentioned.

543. FERGUSON-PELL, M. W. and others. **Pressure sore prevention for the wheelchair-bound spinal injury patient.** *Paraplegia*, Edinburgh, 1980, Feb., vol. 18, no. 1, pp. 42-51.

Pressure sores result not only in financial costs, but also vitally important social and humanitarian costs to the patient and his family. Numerous support systems and treatments have been developed which claim to provide a significant improvement upon conventional supports and/or techniques. The pressure clinic concept has been developed to permit several basic principles of pressure sore prevention to be put into effect in the clinical environment. In particular the clinic specializes in fitting wheelchair cushions 'tailor-made' for the patient from blocks of flexible foamed polyurethane. Further developments include a method for measuring the pressure beneath the ischial tuberosities and techniques for measuring a patients' habitual exercise frequency and seated posture. Results from the records of 600 spinal injury patients attending Rancho Los Amigos Hospital, Downey, Calif., are reported and used to demonstrate the importance of low pressure beneath the ischial tuberosities as an indicator of wheelchair cushion suitability.

TERMINAL CARE

See also Abstract No. 586

544. DELLABOUGH, R. **Four models of hospice care: programs have diverse features but common theme.** *Hospital Forum*, San Francisco, Calif., 1980, Jan./Feb., vol. 23, no. 1, pp. 6, 7, 9, 10.

Four variations of the hospice model, all in northern California, are described. The Kaiser-Permanente Hayward Hospice incorporates a hospice in a hospital setting and has cared for 200 patients in the last two years. It includes a 10-bedded unit and a home care programme and the staff are drawn from other parts of the hospital, with the exception of the co-ordinator of the hospice service. Volunteers help the professional staff, visiting hours are not restricted and a family room is provided. The Hospice of the Monterey Peninsula is freestanding, offers home care and has six in-patient beds. It is financially dependent on grants and donations and grew from a self-help group called Cancer Recovery Project. There is a staff of 23 and a large education department. The Hospice of San Martin in San Rafael is a licensed home health care agency and has provided home hospice services to 400 patients since February 1976. It has one of the few training programmes in hospice care. The Hospice of San Francisco aims to

co-ordinate existing hospice services in order to prevent duplication. The main points in the hospice philosophy of care and four publications about the hospice movement are listed.

545. NORBERG, A. and others. **Ethical conflicts in long-term care of the aged: nutritional problems and the patient-care worker relationship.** *British Medical Journal*, London, 1980, Feb. 9, vol. 280, pp. 377, 378.

The relationship between patients and care workers was observed and discussed among staff in four long-stay somatogeriatric wards at Saint Lars Hospital, Lund, Sweden. Care workers included doctors, cleaners, nurses and auxiliary nurses and the investigation centred on patients in the terminal phase who could no longer be spoon-fed. The relationship was complex and the care worker could not always interpret the dying patient's behaviour in refusing to eat and drink. This led to anxiety and tension in both worker and patient. A decision to institute intravenous or tube-feeding does not help the patient but only delays natural death. However, the care worker may feel a duty to keep the patient alive. Emotional conflicts like these must be reduced by analyzing and discussing the problems involved in caring for terminal patients who refuse food.

546. KRICHEWSKY, M. Mourir à l'hôpital: les soins palliatifs dans les pays anglo-saxons et en France. **[Dying in hospital: terminal care in Anglo-Saxon countries and France.]** *Revue Française des Affaires Sociales*, Paris, 1979, Oct./Dec., vol. 33, no. 4, pp. 3-36.

An examination of attitudes towards death in contemporary society, particularly among doctors and nurses, and a description of the situation of the dying in hospital are followed by a lengthy and sympathetic account of the work of St Christopher's Hospice for the Dying in London. The article describes treatment given to the patients, admission procedures, day-to-day life in the hospice, domiciliary care for terminal patients living near the hospice, teaching and research, and the author's personal impressions of the hospice. There are now approximately 40 centres for the care of terminal patients in Great Britain, whereas with few exceptions, such as the La Croix-Saint Simon Hospital and the Cognacq-Jay Foundation in Paris, there have been very few developments along these lines in France. The author suggests that the reasons for the neglect of terminal patients in France are: cultural attitudes, centralized bureaucratic practices which leave little room for experimentation and innovation, a general fear of death, refusal to face the prospect of one's own mortality, and the predominance in France of scientific as opposed to relational psychology. Eight tables and a bibliography are included.

547. EMBLETON, L. **Children, cancer and death: a discussion of a supportive care system.** *Canada's Mental Health*, Ottawa, 1979, Dec., vol. 27, no. 4, pp. 12-15.

This paper discusses experiences while working with families where a child has a potentially fatal illness (cancer). It is based on the care of 75 children and their families at the oncology clinic, Children's Hospital of Eastern Ontario, Ottawa, over a three-year period. The paper covers: theory and research on the subject; the membership of the caring team and their role; the child; the family; death and follow-up; and the staff.

548. POTTER, J. F. **A challenge for the hospice movement.** *New England Journal of Medicine*, Boston, Mass., 1980, Jan. 3, vol. 302, no. 1, pp. 53-55.

The hospice movement has offered outstanding support to the patient dying of cancer. Nevertheless, the potential for abuse of hospices does exist. This paper discusses some of the critical questions which must be answered. These are: which patients should enter the hospice; the clinical care to be provided; evaluation of staff; control of pain; financial concerns; and research. The successes of the hospice movement have been achieved because hospice programmes, relatively few in number and small in size, have attracted highly competent, ethical, compassionate and psychologically stable staff. These successes have established a new generation of hospices; these must continue to function on the same high level of professional competence. Critical evaluation of the operation of the hospice must continue, and safeguards must be established to prevent abuse.

549. MARTIN, C. and BRINK, G. R. **Setting up an in-hospital hospice.** *Hospital Forum*, San Francisco, Calif., 1980, Jan./Feb., vol. 23, no. 1, pp. 12-14, 17.

The hospice at Riverside Hospital in Newport News, Virginia, opened in April 1979 and has since served 80 families. Some general points about the objectives of hospice care and the steps taken at Riverside towards founding the hospice are described. A small planning committee was set up in 1977 to review the literature available on hospice care in the United States, Canada and Great Britain and several hospices were visited. An enthusiastic Hospice Committee, composed of 13 hospital staff, began meeting in November 1978 and prepared a list of objectives for the hospice programme which aimed: (i) to provide appropriate care for the terminally ill patient; (ii) to give support and education to his family; and (iii) to determine the effect of the hospice service on Medicare and Medicaid programmes. In addition, the Committee provided: (i) public forums on hospice care; (ii) cemented relationships between the hospice and the community; (iii) helped to co-ordinate in-patient and home care services; (iv) educated hospice staff in the care of the dying; and (v) started to evaluate the hospice system. The 22 points of the National Hospice Organization's Standards of a Hospice Program of Care are listed.

550. SPITZER, E. **The modern hospice.** *Medical Journal of Australia*, Glebe, N.S.W., 1979, Dec. 1, no. 11, pp. 585-586.

In a hospice the prime objectives are: (i) to bring relief from pain to the terminally ill patient; (ii) to care for him as a whole person; and (iii) to give support to his family both before and after bereavement. The management of terminal cancer calls for skills of a high order and with a regular regime of drugs the severe pain, suffered by about 40 per cent of patients, can nearly always be overcome. The physical environment is important and most hospices have only 25 to 50 beds arranged four to five in a ward or bay. Staff are chosen as much for their personal qualities as their professional skill and the hospice provides invaluable experience in the care of the dying. In Britain, hospices have been set up by charities and are independent of any government authority, although the National Health Service may sometimes bear some of the revenue expenses. The author hopes that Australia will follow Britain's example in the establishment of hospice care.

EVALUATION OF CARE

See also Abstract Nos. 592, 594

551. MARRINER, A. **The research process in quality assurance.** *American Journal of Nursing*, New York, 1979, Dec., vol. 79, no. 12, pp. 2158-2161.

The author discusses the structure needed to implement a quality control programme. The process approach to care measures what nurses do, while the outcome approach measures the results of care and evaluates whether goals were reached. Audits are usually retrospective and use the outcome approach. Once the patient group to be studied has been identified, selection of goals and the development of methods of measurement must follow. The validity and reliability of such methods may be estimated by various means of testing and re-testing. The use of observation, interviews, questionnaires, charts and care plans as methods of data collection are described. The group used for sampling should perferably be fairly large. Random sampling is a good technique, but systematic sampling is needed when a group representing a certain percentage of the population is required. The quality control committee should understand the problems which cause discrepancies between standards and performance, and must determine the performance level below which corrective action will be taken. Research into the cost and effects of audits is still needed.

HOME CARE, AFTER-CARE

552. GONNELLA, J. S. and HERMAN, M. W. **Continuity of care.** *Journal of the American Medical Association*, Chicago, Ill., 1980, Jan. 25, vol. 243, no. 4, pp. 352-354.

Continuity of care is an important goal, but continuity has no intrinsic value. It is of value only to the extent that it has an impact on the outcome of care, the prevention or reduction of physical, mental or social disabilities, the satisfaction of patients, and the costs of care. It is important that research studies should include patients with a broad range of social characteristics and that costs as well as health care benefits be measured. The authors recommend an accountability model which describes the contributions of physicians, health care institutions, patients, and the local community to health outcomes. Three principles for the evaluation of health care are outlined: (i) determine the patient's health status before and after care; (ii) use appropriate measures of health outcomes; and (iii) consider potential effects of factors extrinsic to medical care.

SPECIAL DEPARTMENTS

ADMISSION UNITS

See Abstract No. 462

OPERATING SUITES

See also Abstract No. 483

553. BROWN, L., GELFAND, S. and REGINA, M. **The peripheral corridor operating suite.** *Middle East Health*, Morden, 1980, Jan., vol. 4, no. 1, pp. 20-22.

A peripheral corridor operating suite, where a number of operating rooms surround a central sterile area, was adapted from a Swedish plan for the South Nassau Communities Hospital. Two banks of six operating rooms each surround a central core to which sterile supplies are brought from carts. Staff enter the suite through their own dressing rooms and scrub at sinks in the peripheral corridor. Patients are brought to the theatre from a holding area and are transferred to a three 'station' recovery room after surgery. All used items and rubbish are removed via the corridors. X-ray facilities are available for all six operating rooms and an X-ray darkroom and a pathology laboratory are included in the suite. A combined kitchen and lounge area doubles as a classroom. The suite functions smoothly and contributes to patient safety by reducing the risk of infection.

MORTUARIES AND POST-MORTEM ROOMS

554. MOSTOFI, F. K. and others. **Pathology in the Soviet Union.** *Journal of the American Medical Association*, Chicago, Ill., 1980, Jan. 18, vol. 243, no. 3, pp. 248-251.

Five pathologists from the United States visited the Soviet Union for three weeks in 1978 to learn of the training in and practice of pathology in that country. Their major observations are: (i) pathology is a medical specialty in the Soviet Union, with practice limited to anatomic pathology; (ii) exfoliative cytology and clinical pathology are not part of pathology; (iii) interest, both clinical and experimental, in occupational, environmental and geographical pathology is conspicuous; (iv) an autopsy rate of 90 to 95 per cent is customary; and (v) there is an organized and hierarchical framework for practice, with career patterns established early and change infrequent. Compared with practice in the United States, Soviet pathology is characterized by a narrow scope of activities, greater emphasis on autopsies, lesser use of technology, and relative isolation from the clinical practice of medicine.

PHARMACY

See also Abstract No. 504

555. BROEKEMEIER, R. L., BREWER, P. E. and JOHNSON, M. K. **Audit mechanism for hospital drug distribution.** *American Journal of Hospital Pharmacy*, Washington, D.C., 1980, Jan., vol. 37, no. 1, pp. 85-88.

The development and application of an audit of its unit dose drug system by the 730-bed Metropolitan Medical Center, Minneapolis, is described. Criteria used were based on the broad drug distribution criteria developed by the Minnesota Society of Hospital Pharmacists' PSRO Liaison Committee: verification and interpretation of the physician's original order; and proper preparation of the prescription. Subcriteria (detailed in an appendix) were developed by the staff of the hospital pharmacy department

Month-long audits are based on one of three criteria. A committee, consisting of two staff pharmacists, one administrative pharmacist and one technician, audits a predetermined number of randomly selected medication orders, medication profiles, filled medication orders or medication drawers. Deficiency patterns are identified, and appropriate corrective action is taken. Audits require approximately eight hours of pharmacist-time and three hours of technician-time per criterion per month.

556. STRANDBERG, L. R. and others. **Effect of comprehensive pharmaceutical services on drug use in long-term care facilities.** *American Journal of Hospital Pharmacy*, Washington, D.C., 1980, Jan., vol. 37, no. 1, pp. 92-94.

Three long-stay care facilities in Nampa, Idaho, with a total of 260 beds, have received comprehensive pharmaceutical services, including unit dose drug delivery, from a centralized pharmacy since June 1969. The system is characterized by pharmacy review of the physician's original order, a medication profile sheet, a 24-hour cabinet-exchange system featuring individual patient drawers, and a nurse's medication record. Medication and data from 10 per cent of 4,004 patient records was analyzed. A significant decline occurred in the number of prescription drugs (42.8 per cent) and the number of prescription doses (34.6 per cent) consumed over the eight-year period. The number of non-prescription drugs decreased significantly (34.4 per cent), but not the consumption of non-prescription drug doses. When adjusted for inflation, the average monthly medication bill per patient decreased by 28.9 per cent, the average for Medicaid patients being significantly greater than that for private patients. No significant changes occurred in the therapeutic categories of drug use.

557. MOSS, R. L., GARNETT, W. R. and STEINER, K. C. **Physician attitudes towards pharmacists counseling patients on adverse drug reactions.** *American Journal of Hospital Pharmacy*, Washington, D.C., 1980, Feb., vol. 37, no. 2, pp. 243-247.

A study is reported of the attitudes of physicians in a university teaching hospital towards pharmacists counselling patients regarding adverse reactions to prescribed drugs. A questionnaire was mailed to 120 physicians in each of three groups (teaching staff, house staff and community practitioners with attending privileges). It listed 56 potential adverse reactions associated with commonly prescribed medications in 13 therapeutic categories. Half the questions pertained to in-patient and half to out-patient situations. The physicians were asked whether their patients should be informed about possible reactions and, if so, if the physician alone, the pharmacist alone, or both should do the counselling. When 'pharmacists only' and 'both' data were combined, over 50 per cent of the 199 respondents accepted pharmacists as patient counsellors for all listed reactions except the three pertaining to antipsychotic agents. Pharmacist participation was most acceptable for reactions involving anticoagulants, antibiotics and analgesics and least acceptable for those involving antipsychotics, cardiac glycosides and anti-anxiety agents. Acceptability was lowest among community physicians and was slightly higher in out-patient versus in-patient situations.

558. INMAN, W. H. W., editor. **Monitoring for drug safety.** Lancaster, MTP Press, 1980. xxv, 673pp. ISBN 0 85200 234 3 £16.95

A comprehensive review of existing systems for drug safety monitoring in many

countries is given, and future needs for new methodologies are defined. A series of articles is included on the requirements of specialist departments such as anaesthesiology, midwifery and ophthalmology. Other chapters deal with (i) medical record linkage; (ii) epidemiology; (iii) the use of computers; (iv) decision making; (v) compliance with treatment; (vi) legal problems; (vii) the pharmaceutical industry and its relations with government; and (viii) sources of information. A major feature of this work is the section on communications between people who represent the above interests and of the relations between patients and their doctors, the pharmaceutical industry and the media.

559. JEFFREY, L. P. and GALLINA, J. N. **Pharmacy service units: the evolution of a concept.** *American Journal of Hospital Pharmacy*, Washington, D.C., 1980, Jan., vol. 37, no. 1, pp. 78-81.

The 719-bed Rhode Island Hospital, Providence, has three separate but connected in-patient buildings and a 12-storey ambulatory care centre. To overcome the problems of drug distribution in these facilities, it was decided to centralize the distribution activities as far as possible, but to decentralize the pharmacists and their functions. This has led to the development of the concept of service termed pharmacy service unit (PSU). Each PSU covers approximately 100 beds and consists of a supervisor, two staff pharmacists, a technician specialist and a technician. Five PSUs provide daily 12-hour pharmaceutical services. Initial medication doses are provided from satellite stores maintained for each PSU; subsequent doses are dispensed from the central pharmacy in unit dose form. Other functions of the PSUs, including clinical and administrative responsibilities, are described. The PSU concept has resolved previous logistical problems in drug distribution and has integrated the distributive, clinical and administrative roles of the pharmacists.

560. EATON, M. L. and HOLLOWAY, R. L. **Patient comprehension of written drug information.** *American Journal of Hospital Pharmacy*, Washington, D.C., 1980, Feb., vol. 37, no. 2, pp. 240-243.

A study was carried out at the Minneapolis Veterans Administration Medical Center to determine whether altering the readability level of drug information would help comprehension by patients. A total of 108 patients, who could read English in a type of normal size and were not already familiar with the drug used in the study, were given at random instructions written on the fifth or 10th grade reading level. A significant correlation was found between the reading level and a clear understanding of the information. All patients receiving the fifth level material understood it well, while only those with a high level of reading skill understood the 10th level material. The study shows that: (i) the comprehension of written drug information is dependent upon reading skill; and (ii) comprehension can be improved by adjusting the reading level of the information to the reading skills of the majority of the patient population.

LABORATORIES

See Abstract No. 554

DIAGNOSTIC X-RAY DEPARTMENT

561. SAUVEGRAIN, J. Optimisation de l'imagerie radiologique au moindre coût. **[Maximum use of X-rays for minimum cost.]** *Gestions Hospitalières*, Paris, 1979, Nov., pp. 839-841.

The Ministries of Health and Finance are naturally wary of costly technical innovations such as computer-aided tomography, since equipment of this type is added to but does not replace existing diagnostic equipment, and there is no obvious advantage to the patient or to society. Consequently, relatively few scanners have been purchased for French public hospitals. There is now no doubt that the scanner can reduce the number of diagnostic investigations required, but it cannot entirely supersede existing techniques such as arteriography or scintillography. Doctors are well aware of the economic aspects of medicine, and radiologists take great care in deciding which investigations should be done and in what order; they avoid any test which is unlikely to provide additional information which would be of use in determining what treatment should be given. The administrators should not hound the doctors, who know that if they themselves do not impose limits on the number and type of investigations to be done, limits will be imposed on them by non-medical decision-makers for non-medical reasons.

562. WHITE, J. **Silver recovery-departmental management approach.** *Radiography*, London, 1980, Feb., vol. 46, pp. 35-41.

In the processing procedure about one-third of the silver on X-ray films forms the diagnostic image while the remaining two-thirds is removed in the fixing solution and is potentially recoverable. The price of silver is increasing rapidly and should in itself be an incentive to reclaim as much silver per square metre of film as possible. Three systems of recovery are reviewed: metal exchange, high current density electrolysis, and fixer bulk collection. Their respective advantages and disadvantages are listed. An administrative approach to silver recovery is outlined. The benefits of this approach in a department using the high current density electrolysis method are demonstrated. While this system is expensive, the high prices paid for silver very quickly repay the initial cost. Thereafter, with the exception of a small collection charge, the return is considerable.

563. BIGOT, J.-M. and LAVAL-JEANTET, M. Enquête sur l'état du matériel radiologique de l'Assistance publique. **[An investigation into the condition of radiological equipment used by the Assistance Publique.]** *Hôpital à Paris*, Paris, 1979, Nov./Dec., pp. 485-487.

A survey of the radiological equipment in *Assistance Publique* (AP) hospitals in Paris showed that: (i) 73 of the 363 generators and 56 of the 176 standard tables are more than 12 years old; (ii) 32 out of the 86 remote control tables are more than eight years old and 26 of the 120 specialist tables are more than ten years old; (iii) 65 of the 333 mobile units are more than 15 years old and some of these are dangerous; and (iv) 92 of the 142 radioscopy units are more than 15 years old. This means that much of the AP's radiological equipment will soon need to be replaced, particularly in the older hospitals and in the hospitals and departments established about 11 years ago. A comparison with similar data for 1973 shows that the structure of the stock has changed very little. The only innovations are four scanners and 12 echographs. The authors feel that it is

essential that a large percentage of the AP's budget should be allocated each year to radiological equipment.

RADIOTHERAPY DEPARTMENT

See also Abstract No. 582

564. JANKOWSKI, W. **'Light and airy' underground.** *Lighting Design and Application*, New York, 1980, Jan., vol. 10, no. 1, pp. 14-18.

When Cooley Dickinson Hospital, Northampton, Mass., needed a new radiation therapy department, a design study revealed that an underground installation would be 30 per cent less expensive to construct than a ground level facility. The structure, completed in September 1977, is made of reinforced concrete, cast in place, and coated with hot applied 1/16 inch liquid membrane waterproofing. Annual operating costs are half those of a conventional above ground facility, largely because of reduced energy needs. Skylights to introduce daylight and warm interior design have been used to produce a light and airy environment. User reaction has been positive. Six photographs are included.

REHABILITATION

See also Abstract Nos. 464, 576, 599

565. CAY, E. L., STUCKEY, N. and PHILIP, A. E. **Cardiac rehabilitation.** *Demonstration Centres in Rehabilitation Newsletter*, Middlesbrough, 1980, Jan., pp. 9-14.

Failure to return to work following myocardial infarction is often due to psychological and social causes such as depression and other emotional upsets. Comprehensive rehabilitation schemes can do much to increase the numbers returning to employment. Shortly after opening, the Rehabilitation Medical Unit at the Astley Ainslie Hospital, Lothian, received patients referred from several hospitals, largely on an out-patient basis. As many problems were psychological, supportive treatment was offered as well as a programme of physical exercise. Those unable to find work were assessed in the occupational therapy workshop and the appointment of a clinical psychologist allowed the educational aspect of the programme to expand. More equipment was obtained and a medically supervised training programme was established with patients attending three times weekly. A service was also provided for in-patients transferred from the Glasgow Royal Infirmary about the 10th post operative day. In 1979 the service for in-patients was extended and those likely to have social problems were assessed four weeks after discharge. About one in four patients are invited to attend the Rehabilitation Unit to help them prepare for work. Plans to evaluate the rehabilitation service are now being examined.

DEPARTMENTS FOR SPECIAL THERAPY

See also Abstract No. 586

566. MCHUGH, M. L., DIMITROFF, K. and DAVIS, N. D. **Family support group in a burn unit.** *American Journal of Nursing*, New York, 1979, Dec., vol. 79, no. 12, pp. 2148-2150.

The family support group in the burn unit at the University of Michigan Hospital is

described. The objectives were to: (i) provide families with information about burn care; (ii) support them through the experience from injury to discharge; and (iii) improve communications between families and staff. The first two meetings dealt with information and were well attended, while the final meeting attempted to deal with emotional responses to tragedy. The group leaders were able to inform members of community resources to help with problems after discharge and members shared ideas about helping their relatives. Families pass through different emotional phases when faced with having a badly burned family member and as different families reached different stages at various times, the temporary formation of sub-groups was found to be helpful. Staff members of the unit now attend meetings of the group to help communication with the families.

567. PASCALIS, G. A l'hôpital. **[In the hospital.]** *Informations Sociales*, Paris, 1979, no. 11, pp. 90-98.

This is an account by a psychiatrist of his experience in charge of a 24-bed psychiatric unit in a university hospital. On average, this unit looks after two acutely psychotic patients, two chronic psychotics, three confused elderly patients, and 17 patients suffering from psycho-social distress, alcoholism, or a combination of medical and psychiatric illness (melancholia and Parkinsonism, for example, or diabetes and mental confusion). Some patients are admitted after being seen in the out-patient clinic, some as acute emergencies, some at night, and some unnecessarily, simply because they are a 'nuisance'. The author discusses his relations with other doctors both inside and outside the hospital. He expresses the view that psychiatry and psychiatric patients are the Cinderellas of medicine and the psychiatric department in the general hospital runs the risk of being used as a dustbin for any patient who becomes a nuisance elsewhere. He recommends that one psychiatrist should, of right, have a seat on the hospital's consultative medical committee and that psychiatric responsibilities should be limited.

568. QUINSEY, V. L. **Assessments of the dangerousness of mental patients held in maximum security.** *International Journal of Law and Psychiatry*, Oxford, 1979, vol. 2, no. 3, pp. 389-406.

This paper describes the progress of a research programme on the dangerousness of psychiatric patients which has been conducted at the all-male, maximum security 'Oak Ridge' Division, Mental Health Centre, Penetanguishene, Ont. A series of empirical studies involving assessment of dangerousness is reviewed from clinical, demographic, behavioural, psychometric and psychophysiological perspectives in turn. The review indicates that progress has been very uneven in the various areas investigated. It is concluded that research based on 'criminals' or 'mentally disordered offenders' using independent variables which have no theoretical basis or dependent measures which are imprecise, is doomed to failure, although in all likelihood this type of research will continue for some time to come. A list of 50 references to the literature is included.

INTENSIVE CARE UNITS

569. THOMASSON, J. Utredning om IVA: stress, tempo och ovisshet. **[A study of work in ITUs: stress, pressure and uncertainty.]** *Vårdfacket*, Stockholm, 1980, Feb. 7, vol. 4, no. 2, pp. 49-53.

Of the 1,400 nurses working in Sweden's intensive care wards, 52 per cent are part-

timers, which is above average for the nursing profession. Their average age is low compared with other departments: 75 per cent are under 35; over 80 per cent are under 40. Only 72 per cent are formally qualified for the posts they occupy. Turnover is very high—over 10 per cent a year: ie. half the nurses are out of intensive care after five years. They either apply for posts in teaching and higher up the system or they leave, have babies, and apply for jobs on 'easy' wards. Problems seen as producing stress are the high state of preparedness and uncertainty entailed in the job; the job's intermediary position between the patient and the rest of the hospital staff; pressure and complexity of the work, coupled with the knowledge of what a mistake may entail; and always working with the most serious cases. Solutions proposed are: (i) a study of stress factors; (ii) increased staffing; (iii) less overtime; (iv) more training; and (v) a much wider debate aimed at improving relationships with other staff categories, particularly doctors.

570. LeWinn, E. B. **The coma arousal team: procedures for the patient's professional attendants and for his family.** *Royal Society of Health Journal*, London, 1980, Feb., vol. 100, no. 1, pp. 19-21.

The work of a Coma Arousal Team (CAT) as developed by the Institutes for the Achievement of Human Potential in Philadelphia can benefit the comatose patient in reducing morbidity, mortality and length of stay in hospital. The CAT should be made up of a physician, a registered nurse, a physiotherapist and one other, preferably a family member. The team attempts to: (i) initiate vigorous sensory treatment to help the patient regain consciousness; (ii) overcome deprivation caused by brain damage; (iii) make the patient independent of life support systems; (iv) achieve early discharge; and (v) teach the family to continue the CAT's work. A Coma Arousal Unit should be established next to, or even within, the intensive care unit. Equipment should include: (i) a powerful torch for visual stimulation; (ii) two blocks to strike together for auditory stimulation; (iii) a needle, ice cold water and other items to stimulate tactile senses; and (iv) strong tasting and smelling items to stimulate the senses of taste and smell. Different types of stimulants are applied through one hour, or cycle, pauses between cycles being devoted to nursing care and other procedures. A Coma Arousal Team provides a procedure which is medically beneficial for the patient at little cost to the hospital.

SPECIALIZED HOSPITALS AND UNITS

OUT-PATIENT

571. Morlunghi, P. and Caroli, G. Analisi dell'attività specialistica ambulatoriale in Umbria e confronto con standards di riferimento, proposte di potenziamento e pubblicizzazione del servizio tramite l'intervento degli ospedali. **[Analysis of out-patient specialist activity in Umbria and comparison with reference standards, a proposal for developing the service and turning it into a public service by using the hospitals.]** *Rivista degli Ospedalia*, Roma, 1979, Nov./Dec., vol. 11, no. 6, pp. 466-475.

The authors have analyzed data, for each of the 12 areas in Umbria, of out-patient specialist services and consultations provided in area and provincial hospitals by the

Medical Insurance Institutions in 1976, and also data on visits and services provided by specialists in private practice who have agreements with the insurance institutions. They compared these figures with theoretical hospital out-patient capacity in the Region. They conclude that, if they are fully used, the hospital out-patient clinics are capable of providing the level of services required in general medicine, general surgery, obstetrics, gynaecology, and paediatrics, and it should no longer be necessary to employ specialists in private practice to the same extent. In other specialties such as dermatology, ophthalmology, neurology, orthopaedics, and ENT, greater use of hospital capacity may not fully meet demand. The level of private practice is higher in the main towns in the Region (Pergugino and Ternano), where hospital capacity may be underutilized. The authors suggest that agreements between the insurance institutions and the specialists in private practice should be terminated wherever these are not required, but that these specialists should be encouraged to provide services in areas in the region where the public service cannot meet demand. The authors provide eight tables of statistics to support their thesis.

CASUALTY AND ACCIDENT

See also Abstract Nos. 516, 538, 584

572. WILSON, D. H. **The development of accident and emergency medicine.** *Community Medicine*, Bristol, 1980, Feb., vol. 2, no. 1, pp. 28-35.

On its inauguration in 1948 the National Health Service inherited a large number of casualty departments, usually housed in substandard accommodation and inadequately staffed. This paper traces the development from this beginning of the accident and emergency services, which now treat more patients than all other out-patient clinics combined. A number of reports on the service are mentioned, but the report in 1971 of the joint working party set up by the Joint Consultants Committee under the chairmanship of Sir John Bruce is seen as the turning point in the creation of a new specialty of accident and emergency medicine. The report proposed, and the Department of Health and Social Security accepted, that 32 experimental consultant posts be created. Of equal significance was the introduction of a senior registrar training programme. Current developments in undergraduate education, postgraduate training and research in emergency work are described. Some international aspects of emergency care are also mentioned.

OCCUPATIONAL HEALTH

573. SLANEY, B., editor. **Occupational health nursing.** London, Croom Helm, 1980. 177pp. bibliogs. ISBN 0 85664 779 9 £8.95

Although working in the community, industrial nurses train in hospitals and must have close contact with them in their work. There is a necessity for occupational health nurses to liaise and co-operate with the hospital service since there will always be a small number of patients within their care who are undergoing hospital treatment either as in-patients or as out-patients. Nurses often make the initial referral or co-operate by maintaining treatment, health supervision or education, and they will be involved in any resettlement, retraining or rehabilitation. Constant liaison with hospitals will keep the occupational nurse up-to-date in current treatments and procedures. This useful book gives a full range of practical advice with chapters on: planning, function and layout of

an occupational health department; records; health supervision; health education; counselling; and rehabilitation.

DAY HOSPITALS

574. HILDICK-SMITH, M. **Geriatric day hospitals: practice and planning.** *Age and Ageing*, London, 1980, Feb., vol. 9, no. 1, pp. 38-46.

All 1,026 patients attending the three geriatric day hospitals in East Kent during the year 12 May 1971 to 11 May 1971 were studied. Over half were clinically examined by the author; for the remainder information was obtained from hospital notes. Brief details are given of the facilities for the elderly in East Kent in 1974 and of the three day hospitals. Results of the survey presented include: age and sex; diagnoses; length of attendance; and distance from day hospital. The lack of day centres and psycho-geriatric day hospitals is reflected in the high proportion of patients attending for more than 12 months and the low new patient index. Each area's yearly referrals are related to its resident elderly population and vary from three to 15 patients per 1,000 (average 7.7 patients). Since an average patient attends for three months or more, something between one and two places per 1,000 elderly would be required if they attended two days a week, and up to three places per 1,000 elderly if they attended three days a week. This result suggests that the national guideline of two places per 1,000 elderly may be sufficient to meet present local referrals; though it cannot be assumed it measures need.

CHILDREN

See also Abstract No. 547

575. Zum Selbstverständnis der Kinderkrankenschwester. **[The self-realization of the children's nurse.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1980, Feb., vol. 33, no. 2, pp. 101-103.

This article gives the text of a series of papers read during the German Conference of Children's Nurses held at Karlsruhe in September 1979. The titles of the papers are as follows: the future of the treatment of children and of children's nurses in Germany; the tasks of the children's nurse today; and the self-realization of the children's nurse. Among points made are the following: the children's nurse must be friendlier, more open and more aware of her duties; the training of children's nurses can be improved in detail; the perfect children's nurse needs experience and post-basic training as well as her initial qualification.

GERIATRICS AND LONG-STAY

See also Abstract Nos. 470, 574, 599

576. WEDGWOOD, J. **Early admission is the key to successful rehabilitation.** *Geriatric Medicine*, Beckenham, 1980, Jan., vol. 10, no. 1, pp. 73-74, 77.

Prompt admission of the elderly to hospital in an emergency is the first step towards successful rehabilitation by the health care team. Functional assessment should be carried out as soon as immediate medical problems have been dealt with. Immobility due to illness can soon become long term if energetic rehabilitation is not started. The

arrangement of a patient's care is best planned by a problem solving approach, an example of which is given. Regular team meetings to assess the patient's progress are essential to geriatric care and rehabilitation. When resources are scarce, simple exercises can achieve a lot, but, where available, the physiotherapist and the occupational and speech therapist can help restore the patient to independent living. Treatment must be continued after discharge, often by day hospital care. Good communication between the hospital, the general practitioner and the community services is also necessary.

577. PITT, B. and SILVER, C. P. **The combined approach to geriatrics and psychiatry: evaluation of a joint unit in a teaching hospital district.** *Age and Ageing*, London, 1980, Feb., vol. 9, no. 1, pp. 33-37.

In 1972 the London Hospital established a 25-bed combined geriatric and psycho-geriatric unit for assessment and treatment. There are separate day and dining rooms, two side wards for noisy or very ill patients, and a large conference room. Outdoor clothing is commonly worn. Staffing includes the consultant geriatrician and consultant psychiatrist, two registrars and two pre-registration house physicians, and a psychiatric registrar or senior house officer. The nursing staff consists of one sister, three staff nurses, 2.75 enrolled nurses, 12 learner nurses and three auxiliary nurses. During the five years 1973 to 1977 there were 1,576 admissions. The turnover per bed was 12.6 per year, discharges 58 per cent and deaths 22 per cent. Results compare favourably with other geriatric and psycho-geriatric units and with the treatment of elderly patients with psychiatric disorders in a general medical ward. The arrangement meets the needs of elderly patients very well, provides a valuable training ground, and ensures excellent liaison between geriatric and psycho-geriatric services.

578. COWLEY, W. J. and BELMONT, M. F. **Improving family-ancillary staff relationships in the geriatric hospital.** *Journal of Gerontological Nursing*, Thorofare, N.J., 1979, Nov./Dec., vol. 5, no. 6, pp. 35-38.

A preliminary survey revealed that ancillary staff at the Jewish Home and Hospital for the Aged, New York, were anxious to increase communication with patients and, more especially, their families. Aides with a number of years' experience had a great respect for both the patients' and the nurses' abilities, but showed a low rating in their attitude to patients' families. A group of 20 aides were selected to take part in 12 workshops conducted by the hospital administrator. Workshops were based on areas of concern such as: (i) ancillary staff participation in patient care; (ii) understanding of the guilt felt by patients' families; and (iii) understanding the effect on the patient of ageing and physical disability. The workshops increased positive feelings about working with geriatric patients. Fifty per cent of the aides wanted to continue in-service education and complaints from patients' families concerning ancillary staff were noticeably reduced.

579. NORWICH, H. S. **A study of nursing care in geriatric hospitals.** *Nursing Times*, London, 1980, Feb. 14, vol. 76, no. 7, pp. 292-295.

Three geriatric hospitals in the North-East Thames Region were surveyed to: (i) investigate the major factors affecting the nursing care received by patients, and to produce geriatric dependency measures; and (ii) examine any differences existing between wards and hospitals in the care given to patients. Similar, though less detailed, data was available from a fourth hospital outside the region. Brief details of the hospitals

are given. For the three hospitals two forms of observation were used: recordings of all nursing care given to a sample of six to eight patients during a 12-hour day-time period; and activity sampling (usually every five minutes) of the overall activities and duties undertaken by the nurses. In the fourth hospital only activity sampling was used. The results, presented in tables and graphs, are discussed. They show, particularly, that not all patients' demands and needs can be met in practice though priority group activities are met. The allocation of nurses' time to specific tasks and patients is therefore determined in terms of perceived priorities for care, where the priorities are by and large related to the physical dependency of patients.

580. WILKINSON, I. M. and GRAHAM-WHITE, J. **Dependency rating scales: for use in psychogeriatric nursing.** *Health Bulletin*, Edinburgh, 1980, Jan., vol. 38, no. 1, pp. 36-42.

A method of assessing the impact upon nursing resources of caring for the elderly psychiatric patient has been developed at the Royal Edinburgh Hospital. A set of Dependency Rating Scales (DRS) was drawn up where dependency was measured as nursing time required by the patient. The scales had three sections: (i) orientation; (ii) behaviour; and (iii) physical. The reliability of the scales were tested on 12 wards by two raters. Their validity was tested by staff assigning patients into categories by degree of dependency and a high degree of comparability with the DRS was obtained. The scales were then combined with the Aberdeen formula for nurse allocation to allow for time spent on behavioural care and an accepted ratio of physical to behavioural care was judged to be 60:40. The DRS could then be used to calculate nurse:patient ratios for psychogeriatric wards, taking into account the demands of a particular ward and the desired standards of care.

581. PRESLY, A. S. and others. **An evaluation of the reduction in patient numbers in psychogeriatric wards.** *Health Bulletin*, Edinburgh, 1980, Jan., vol. 38, no. 1, pp. 32-36.

Sixty-five elderly, female patients in two long-stay wards at the Royal Dundee Liff Hospital were re-grouped into three wards of 27, 17 and 20 beds. The effect of the change on social interaction and patient activity was studied over two periods of four weeks. The results indicated improved levels of performance in social interaction and independence in wards A and C, but no clear pattern in ward B. However, most patients in ward C had been more active before the change took place. Increased levels of staffing and a larger day area for activities undoubtedly contributed to patient improvement. There were some changes in the clinical condition of the patients, but these were not very marked. Although it is not possible to attribute increased activity and social skills to the reduction in ward numbers alone, the re-organization appears to have been effective at least in the short term.

CANCER

See also Abstract No. 547

582. LONDON HEALTH PLANNING CONSORTIUM. **Report of the study group on radiotherapy and oncology.** (Chairman: Dr. C. E. Gordon Smith), London, [Department of Health and Social Security], 1979. 49pp.

The incidence of cancer is about 4,000 cases per annum per million population, and

to counter it the London Health Planning Consortium recommends the establishment of one Cancer Treatment Centre per million inhabitants. London's declining population means that centres should develop outside the metropolis and within London joint units are called for, serving more than one teaching hospital. Radiotherapy and surgery are not expected to change greatly in the future, but the Consortium predicts a big increase in chemotherapy and diagnostic services. It is recommended that all health districts should have surgery and medical oncology facilities but that radiotherapy should be concentrated at designated centres.

NEUROLOGY AND NEUROSURGERY

583. LONDON HEALTH PLANNING CONSORTIUM. STUDY GROUP ON NEUROLOGY AND NEUROSURGERY. **Report.** (Chairman: Raymond Gedling). London, [Department of Health and Social Security], 1980. [iii], 56pp.

The London Health Planning Consortium has conducted a number of studies on provision of various facilities in the Thames Region; this one concerns neurology and neurosurgery. For neurology the Royal College of Physicians recommend 24-30 beds per million population and two whole-time equivalent consultant neurologists per million; in the London area the actual levels are 45 beds per million and almost three consultants per million. There are no standards for neurosurgery but there are 28 consultants for the 15 million people living in the Thames regions. The Consortium felt the extra provision could be justified by the national responsibilities of the London area and stated that departments of neurology should be maintained in general teaching hospitals with close links to a neurosurgery centre in each case. It is recommended that the Regional Health Authorities should provide eight centres in their areas, each with three neurosurgeons and beds and facilities for four to five neurologists, and serving a population of about one and a half million.

CARDIOLOGY

See also Abstract No. 565

584. NILSSON, K. Tio utryckningar per dag för finsk infarktambulans. **[Ten calls a day for a Finnish coronary ambulance.]** *Vårdfacket*, Stockholm, 1979, Dec. 13, vol. 3, no. 22, pp. 56-58.

The city of Helsinki has had an coronary care ambulance service since 1972. The present ambulance can, if necessary, take two infarct patients at once. It is equipped with emergency frequency radio and two walkie-talkies. Besides normal ambulance equipment there are tubes, infusion materials and other emergency equipment for 30 patients. In addition there is a defibrillator and intravenous drip equipment. The main problem confronting the Finnish health service is the enormous distance between hospitals—up to 300 miles. The ambulance is staffed by two specially trained drivers, a doctor and (in daytime) a nurse. Five doctors are on rota round the clock, but despite very low nurses' wages the service can only afford to keep two nurses on call, so they do not turn out at night. The ambulance cost £50,000 and costs £125,000 a year to run; it is called out 10 times a day on average. Statistical analysis has failed to prove that

more patients' lives are saved than when using conventional transport. Nevertheless the concept of getting coronary patients under qualified treatment and into hospital as soon as possible is regarded as defensible and the only right course. Any area with a population of over 100,000 within a 10 mile radius should have a coronary care ambulance.

585. WILLICOMBE, P. R. and CROWTHER, A. **Non-invasive cardiac investigation.** *Hospital Equipment and Supplies*, London, 1980, Feb., vol. 26, no. 2, pp. 41, 43.

Cardiac catheterization is costly in terms of equipment and of trained staff, and is associated with a high degree of morbidity. The authors give a description of modern techniques and equipment that avoid an operation. The topics covered include echocardiography, nuclear cardiology and exercise testing.

UROLOGY

586. KLENOW, D. J. **Staff based ideologies in a hemodialysis unit.** *Social Science and Medicine*, Oxford, 1979, Nov., vol. 13A, no. 6, pp. 699-705.

This study presents sociological data arising from relations between staff and patients in a haemodialysis unit. Three social features of such a unit are analyzed: (i) the time frame of chronic treatment and its implication for staff and patient interaction; (ii) staff reaction to a patient's death; and (iii) problems of patient non-compliance. These features are related to the hospital ideologies of cure, care and the needs of the institution, as applied to a haemodialysis unit. The work of the unit and the methods of data collection are described. As cure is not possible, care may continue for years and a close relationship between staff and patient may develop. The patient's death will come as a severe blow if a detached concern is not maintained. If a patient fails to keep to his dietary restrictions, staff will be disappointed and the patient will put himself at risk. The study points out the complexities of care and organization in this particular treatment setting and suggests ways in which future research could help staff with the two problems of patient death and patient non-compliance with treatment.

587. COLLART, D. and HAURIE, A. **On the control of care supply and demand in a urology department.** *European Journal of Operational Research*, Amsterdam, 1980, March, vol. 4, no. 3, pp. 160-172.

The aim of this paper is to assess the relative efficiency of three controls applied to the supply and demand system of in-patient nursing care in a hospital department: (i) admission of elective patients; (ii) allocation of a floating pool of nursing staff among various care units; and (iii) assignment of the staff in each unit to various tasks. Data from the urology department, l'Hôtel Dieu de Montréal, are used in a simulation to assess the effectiveness of the various controls. For the urology department studied, it is concluded that: (i) a floating pool of staff is a very efficient means of adjusting care supply to fluctuations in demand; (ii) admission control designed to predict the impact of a new admission on the demand for care is equally efficient; (iii) combining both controls is not an improvement but still remains advantageous; and (iv) task assignment does not appear to be an efficient means of controlling care supply and demand adjustment.

SURGERY

See also Abstract No. 531

588. JOHNSTON, M. **Anxiety in surgical patients.** *Psychological Medicine*, Cambridge, 1980, Feb., vol. 10, no. 1, pp. 145-152.

The normal, predictable response of anxiety in surgical patients is seen as a problem on humanitarian grounds and because it may increase surgical risk and delay post-operative recovery. The natural course of anxiety before and after surgery was examined using the State-Trait Anxiety Inventory in four studies involving 136 surgical patients. The results suggested that high levels of anxiety were experienced before admission to hospital, between admission and surgery, and following surgery, and were not restricted to the immediate pre-operative period. Only a small percentage of patients reached their maximum level of anxiety on the morning of surgery. The results point to the practical need to cope with this anxiety well before admission and continuing some time after surgery. They also suggested, as a theoretical requirement, that models of fear explain continuing high anxiety levels when objective stresses have been reduced.

MATERNITY

589. BIENSTEIN, C. Rooming in—Anspruch und Praxis. **[Rooming-in: claims and practice.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1980, March, vol. 33, no. 3, pp. 167, 168.

While certain hospitals in West Germany proclaim that they have facilities for rooming-in in their maternity departments and ostensibly recommend it, their practice is different. Nurses and doctors present the patient with reasons why rooming-in can be harmful to both mother and baby and argue against the practice: only a very persistent mother feels able to resist the arguments and have her baby with her. This results in a state of conflict which militates against the well-being of the mother and proper nursing care. Doctors and nurses should explain to patients the advantages as well as the disadvantages of rooming-in: if this were the case more mothers would certainly opt for it. Rooming-in helps the mother to get to know her child. The role of the nurse in rooming-in, in part an advisory one, is demanding: unfortunately her training does not prepare her adequately.

PSYCHIATRY

See also Abstract Nos. 460, 463, 496, 503, 537, 567, 568, 577, 580, 581

590. LIESKE, H. Hygiene in der Psychiatrie: Ein Erfahrungsbericht. **[Hygiene in psychiatry: a report.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1980, Feb., vol. 33, no. 2, p. 91.

The author, who has been working since 1977 as a specialist hygiene nurse in a psychiatric hospital, explains the importance of her work. Although there are no operation wounds, no pus-infected bandages and the patients are mostly in physical health there is still much scope for hygiene measures, including proper disinfection,

disposal of waste, and kitchen and laundry hygiene. A hygiene committee has been set up with the medical director, the administrator, the chief nurse and the hygienist as members. Each ward now has a disinfectant-dispenser and cleaners have been given training in hygiene. Much more remains to be done but a start has been made.

591. FORINO, F., POMPILI, S. and SESTI, E. Attuali aspetti dell'assistenze psichiatrica con particolare riferimento ai ricoveri ospedalieri. **[Current aspects of psychiatric care with particular reference to hospital beds.]** *Rivista degli Ospedali*, Roma, 1979, Nov./Dec., vol. 11, no. 6, pp. 453-457.

Act No. 180, dated 17th May 1978, implementing the reform of the psychiatric services in Italy, provided guarantees as to the judicial mechanisms to be applied when patients were admitted compulsorily to a psychiatric hospital. In addition, a network of area psychiatric services was to be provided for the prevention, cure and rehabilitation of patients with psychiatric disorders; there was to be a gradual reduction in admissions and the hospital was to be used only in circumstances of extreme need. Only three hospitals in Rome were designated to provide in-patient psychiatric units. The authors have analyzed admission data from the St. Philip Neri Hospital's 15-bed psychiatric unit for the period May 1978 to May 1979. A total of 525 patients were admitted, and the average length of stay was 9.8 days; 150 or 35 per cent of the total were compulsory admissions; 42 per cent had a history of previous admissions; only 124 (24 per cent) came from the hospital's catchment area, and 19 per cent from outside the region. The authors point out that there is no filter process, and patients arrive at the hospital in the conviction that the hospital is the only suitable structure for the treatment of psychiatric disorders. It is clear that the area structures and services have not yet been provided and the authors call for their immediate provision because the hospitals cannot cope with the large numbers of admissions, which include many patients who do not require in-patient treatment.

592. LACOUR, M. Hors les murs: l'expérience de Corbeil. **[Extramural care: the Corbeil experiment.]** *Informations Sociales*, Paris, 1979, no. 11, pp. 106-114.

An outline of the history of conditions for psychiatric patients in France over the past 100 years prefaces an account of an attempt to find non-institutional answers to the problem of 'madness'. The sector psychiatric team for the town of Corbeil is based in a rambling prefabricated building in the very centre of the town; it has no hospital beds. The team is trying to avoid the creation of a specialist institution, which it sees as one factor in the rejection of psychiatric patients by society, and uses the town's non-specialist agencies—the general hospital, hostels, families and schools, instead. This has meant that inter-personal relationships can develop more easily. The team consists of 14 doctors, 17 nurses, four psychologists, and two social workers. It is divided into four sub-teams, one for each quarter of the town, which means that the team members become very familiar with the area. They provide a real public service in psychiatry to the town, offering a wide range of out-patient care, from chemotherapy to analysis, and their clientele ranges from tramps to company chairmen. The tolerance of the general population towards psychiatric patients has increased and very few patients require admission to hospital. The author briefly describes how their work is financed, and outlines his plans for the future, which include round-the-clock crisis centres and lodgings in the community for psychiatric patients.

593. GIDRON, B. **Volunteer programs in mental health.** *Administration in Mental Health*, New York, 1979, vol. 7, no. 2, pp. 133-147.

Volunteer work can provide a variety of rewards which may be extrinsic (praise by staff, letters of appreciation or award of service pins) or intrinsic (opportunity for self-development or for career testing). The volunteer programme may be organized as: (1) integrated, in which the volunteers are given responsible jobs in accordance with their interests and qualifications; (2) separated, in which they are clearly differentiated from paid staff; or (3) a combination of both. A comparison is presented of the two different types of volunteer programmes in two psychiatric hospitals. The integrated approach succeeded in attracting and retaining a group of young people, adults and senior citizens who were able to contribute on a professional level to the hospital's treatment programme. The separated approach did not lead to the volunteers being involved in other than ancillary roles, and attracted a group more weighted to the older age groups. The integrated and separated approaches provide different types of rewards and appeal to different types of volunteers. A volunteer programme can therefore, be consciously designed to appeal to particular kinds of volunteers.

594. HAVELIWALA, Y. A. **Changing a mental hospital.** *Administration in Mental Health*, New York, 1979, vol. 7, no. 2, pp. 112-119.

In July 1974 Harlem Valley Psychiatric Center, Wingdale, N.Y., provided residential care for 1,826 in-patients and operated one small after-care clinic. Over the next four years, it was transformed from an in-patient, custodial, to a community-based, active treatment facility, despite a reduction of nearly one quarter in its budget. This paper describes the stratagems that enabled this to be accomplished as well as the problems encountered in the process. By allowing one or two additional patients to reside on every ward, it was possible to close two wards almost immediately. This allowed nearly $500,000 to be re-allocated for the development of new community programmes. More patients could then be discharged enabling more staff to be transferred to out-patient services; the change then becoming progressive. The major problem was staff anxiety and massive education programmes were developed to overcome this. Brief details are given of some of the new programmes developed and possible future developments.

595. SPENCER, D. A. **A day-time adult education scheme in a hospital for mental handicap.** *Teaching and Training*, Bristol, 1979, vol. 17, no. 4, pp. 126-128.

In 1978 the Leeds Education Authority agreed to run a pilot scheme to provide about 30 hours of day time adult education at Meanwood Park Hospital for the mentally handicapped. The first term was involved in establishing working relationships between the teaching staff and 23 young adult patients. Individual learning programmes were drawn up following an assessment of abilities. The scheme was extended from mornings only to all day in September 1979 to provide for 30 adults drawn from half the wards in the hospital. Finding accommodation has been the scheme's main difficulty. An advisory committee of officers from the education authority, hospital staff, parents and teachers has been established to advise on the project. The progress made with the mentally handicapped is far more impressive if they are taught in an organized and professional manner.

596. DAVIS, D. R. **Compulsion under Part IV of the Mental Health Act of 1959.** *International Journal of Law and Psychiatry*, Oxford, 1979, vol. 2, no. 2, pp. 169-183.

This paper discusses issues raised by powers given under Part IV of the Mental Health Act, 1959, especially by Sections 25, 26 and 29, to admit a non-offender patient compulsorily to hospital and, in certain circumstances, to treat him without his consent. The author considers how the proposals of the 1978 White Paper on the Act will affect the procedures contained in Part IV. The most controversial admissions occur under Section 29 and vary in number from one area to another, and the author claims that clearer restraints than those in the White Paper should be enacted. The White Paper proposes that there should be a concurring second opinion of several staff when treatment without consent is considered, but it can only be a real safeguard for the patient if it is truly independent. There has been little study of the different uses of Part IV procedures in different areas of the country, or of the outcome of treatments given without the patient's consent. Often powers to compel admission are used without a thorough assessment being made. The White Paper does little to meet the author's criticisms of Part IV of the Mental Health Act 1959.

597. GOSTIN, L. O. **The merger of incompetency and certification: the illustration of unauthorised medical contact in the psychiatric context.** *International Journal of Law and Psychiatry*, Oxford, 1979, vol. 2, no. 2, pp. 127-167.

The author introduces a symposium on the Mental Health Act White Paper (1978) held by the International Journal of Law and Psychiatry. In his opening paper he examines the legal position of the detained patient wishing to refuse psychiatric treatment. The paper includes the current statutory and common law arrangements and considers what the position will be if the proposals contained in the White Paper are incorporated into future legislation. The White Paper follows the Mental Health Act 1959 in its proposal that the position of informal patients should be equivalent to that of non-psychiatric patients in respect of access to courts, consent to treatment and other matters. However, the detained patient is often deemed to be incompetent, and the author examines this issue with regard to consent to treatment, having first discussed the common law position of psychiatric patients and the effect of the 1959 Act upon common law principles. Involuntary admission should not be merged with incompetency to give consent. The author considers that the Act and the White Paper are inadequate both in distinguishing admission status and in providing for an independent assessment of competency to give consent.

598. WATKIN, B. **Strategy for simplification.** *Health and Social Service Journal*, Basingstoke, 1980, Feb. 8, vol. 90, pp. 184, 185.

The report of the Working Group on Organizational and Management Problems of Mental Illness Hospitals (Nodder report) makes commendable recommendations which may prove difficult to implement. The report recommends that a psychiatric services management team (PSMT) should be set up in each district. The everyday management of psychiatric hospitals and units should be carried out by a small hospital management team located in each large hospital or unit group. Planning of psychiatric services in the area should be done under the aegis of a joint care planning team with representation from the PSMT and high priority should be given to the needs of long-stay patients.

Financial responsibility should also be at hospital level and each district should have a psychiatric nursing division. The pattern of ward management suggested is based on multidisciplinary teams making decisions at ward level, and the importance of management training in improving patient services is also emphasized. However, problems such as weakness in middle management and obstructive union activities are not discussed in the report's strategy for simplification.

599. GAJOS, M. J. **A programme for long-stay patients: an attempt to re-socialise and re-educate mentally ill patients.** *Nursing Times*, London, 1980, Jan. 31, vol. 76, no. 5, pp. 204-207.

Any programme devised for the small number of psychiatric patients needing to be accommodated in the hospital must try to achieve the greatest degree of independence and fullness of life for the patient. The author describes a scheme for 20 male patients at Broadgate Hospital, Beverley, the majority of whom suffer from schizophrenic illness. The arrangement of the ward increases social interaction between patients and between patients and nurses. At daily community meetings patients decide on menus and discuss plans for ward decor or for outings. Nurses and local social work students take patients into the town to gain experience of using transport and shopping. Education seminars and musical appreciation groups are also held. Occupational therapy, gardening and decorating a group home are all activities which help to restore self respect. Thirty per cent of the patients have achieved total independence from drugs and selected patients are soon to have one week in six away from the hospital. Staff ward meetings to discuss patients' progress take place weekly.

600. Betere huisvesting voor de psychiatrische patient. **[Better accommodation for the psychiatric patient.]** *Ziekenhuis*, Utrecht, 1980, Feb. 20, vol. 10, no. 4, p. 110.

This paper is a report on planning aspects for modernization of 3,420 psychiatric beds and provision of 2,000 new places. At present the functions of a general psychiatric hospital are not clearly defined and the distribution of psychiatric beds throughout Belgium is unequal. Co-operation with other health institutions and services is insufficient, regional organization poor and living accommodation for long term patients unsatisfactory. In a package of basic building recommendations for general psychiatric hospitals the report recommends: (i) facilities for out-patient short and long term treatment, and observation units for all categories of psychiatric patients from approximately 19 years upwards; (ii) geographical planning, co-operation within the region with other psychiatric services and general hospitals; and (iii) adequate living accommodation for long term patients, such as geriatrics. The standard general psychiatric hospital proposed would include a minimum of 200 and a maximum of 500 beds with: for long term patients, units from four to 12 beds; for observation units, 20 to 30 beds; and for nursing home accommodation attached to a psychiatric hospital, 80 to 100 beds. Specific psychiatric hospitals should be maintained for certain categories (eg. children).

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Department of Health and Social Security, Alexander Fleming House, Elephant & Castle, London SE1 6BY.
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Lexington Books, 125 Spring Lane, Lexington, Mass. 02173, U.S.A.
MTP: Medical and Technical Publishing Co. Ltd., P.O. Box 55, St Leonard's House, St. Leonardsgate, Lancaster, LA1 3BR, England.
Praeger, 111 Fourth Ave., New York, N.Y. 10003, U.S.A. *and* 5 Cromwell Place London SW7 2JL.
Royal College of Nursing, 1a Henrietta Place, Cavendish Sq., London W1M 0AB.
Springer, 200 Park Ave. South, New York, N.Y. 10003, U.S.A.
Spri, Box 1109, 11181 Stockholm, Sweden.
World Health Organization, Avenue Appia, Geneva, Switzerland.

Printed in England for Her Majesty's Stationery Office by Holmes & Sons (Printers) Ltd. Andover, Hampshire.

Dd 698193 K10 6/80 11373

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ISBN 0 11 722666 1
ISSN 0018 5507

HMSO